Ontario

Ontario Geological Survey
Open File Report 6182

Report of Activities, 2005 Resident Geologist Program

Thunder Bay South Regional Resident Geologist Report: Thunder Bay South District

2006

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Thunder Bay South District

by

J.F. Scott, M.A. Magee and C.L. Komar

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Ontario

Ontario Geological Survey
Regional Resident Geologist Program

Thunder Bay South Regional Resident Geologist (Thunder Bay South District)—2005

by

J.F. Scott, M.A. Magee and C.L. Komar

2006

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Thunder Bay South Regional Resident Geologist—2005

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INTRODUCTION

The Thunder Bay South District encompasses an area of about 76 500 km². It extends from longitude 92°30' in the southwest near Namakan Lake easterly to longitude 85°20' just west of White River, Ontario. The southern boundary is the international border between Canada and the United States touching on the states of Michigan and Minnesota. The northern boundary is irregular in nature, but extends up to latitude 50°25' just northwest of Armstrong, Ontario. The reader is referred to the location maps (Figures 1 and 2) for details.

The authors note that, for ease of reading, all Web addresses were accessed on March 20, 2006, unless otherwise noted. All Universal Transverse Mercator (UTM) co-ordinates are reported in North American Datum 1927 (NAD27), unless otherwise noted. All assays were performed at the OGS Geoscience Laboratories in Sudbury, unless otherwise noted.

MINING ACTIVITY

In 2005, there were 3 producing gold mines and 1 producing base metal mine active in the Thunder Bay South District. As well, there were numerous seasonal producing amethyst properties. Mine production and reserves are listed in Table 1. Assessment work received is listed in Table 2. Exploration activity is depicted in Table 3 and keyed to Figures 1 and 2.

Table 1. Mine production and reserves in the Thunder Bay South Resident Geologist's District in 2005.

Mine	Production to end of 2004		Production in 2005		Reserves at end of 2005	
	Tonnage @ Grade	Total Commodity	Tonnage @ Grade	Total Commodity	Tonnage	Grade
David Bell Mine	8 280 972 t @ 11.58 g/t Au	3 494 929 ounces Au	363 515 t @ 9.60 g/t Au	105 143 ounces Au	1 301 769 t	10.57 g/t Au
Golden Giant Mine	18 718 298 t @ 10.62 g/t Au	6 621 908 ounces Au	526 917 t @ 10.227 g/t Au	170 925 ounces Au		
Lac des Iles Mine	5 298 544 t @ 2.41 g/t Pd	308 931 ounces Pd 25 128 ounces Pt 25 679 ounces Au 7 836 183 pounds Cu 4 320 970 pounds Ni	4 780 599 t @ 1.66 g/t Pd	177 167 ounces Pd 18 833 ounces Pt 14 308 ounces Au 5 514 670 pounds Cu 2 353 227 pounds Ni	10 421 845 t (Open Pit reserves as of Dec. 31, 2004) 1 259 980 t (Underground reserves as of Dec. 31, 2004)	1.80 g/t Pd 6.62 g/t Pd
Williams Mine	44 524 002 t @ 4.84 g/t Au	8 094 771 ounces Au	3 139 683 t @ 3.75 g/t Au	354 884 ounces Au	20 389 290 t	2.57 g/t Au

Amethyst

Two areas northeast of Thunder Bay are well-known locations for amethyst veins and production. In the area along the Magone Lake Road, north of MacGregor Township (accessible via Highway 527), 4 sites see periodic, small-scale extraction of amethyst. In McTavish Township, 8 deposits are accessible from Highways 11 and 17, four of which operate as seasonal tourist attractions. The Blueberry Amethyst Quarry also operates as a seasonal tourist attraction, southwest of Kakabeka Falls. Local amethyst deposits and mines are listed below.

Deposit or Mine	Location	Owner(s)
Amethyst Mine Panorama	McTavish Township	S. and T. Lukinuk
Ancliff Station Amethyst Quarry	McTavish Township	C. Anderson
Bak Quarry	McTavish Township	D. Bak
Blueberry Amethyst Quarry	Marks Township	J. Hakala and S. Belletini
Blue Points Amethyst Mine	McTavish Township	L. Swanson
Boulder Creek Amethyst Quarry	North of MacGregor Township	C. Anderson
Breezy Mountain Amethyst Mine	McTavish Township	T. Twomey
Crystal Creek Amethyst Mine	North of MacGregor Township	R. Hietapakka
DanBill Amethyst Mines	McTavish Township and North of MacGregor Township	B. Richardson and D. Arsenault
Diamond Willow Amethyst Mine	McTavish Township	D. Noyes
Gem Mountain Amethyst Mine	North of MacGregor Township	O. and R. Harty
Keetch Amethyst Quarry	McTavish Township	N. Keetch
Ontario Gem Amethyst Mine	McTavish Township	P. Marino
Purple Haze Mine	North of MacGregor Township	M. and S. Grieve

Gold

The 3 Hemlo mines (David Bell, Golden Giant and Williams mines) continue to produce gold from the Hemlo deposit. Mining operations at Newmont Canada's Golden Giant Mine will be winding down during the end of the 2005, with closure slated for late summer of 2006.

DAVID BELL MINE (TECK–CORONA OPERATING CORPORATION)

Production from the David Bell Mine (Teck Cominco Limited (50%) – Barrick Gold Corporation (50%)), from January 1, 2005, to December 31, 2005, consisted of 105 143 ounces of gold from 363 515 t milled, at a feed grade of 9.60 g/t gold (V. Baker, Teck–Corona Operating Corporation, personal communication, 2006).

As of January 1, 2006, proven and probable reserves from the 'A', 'C' and 'D' zones totalled 1 301 769 t at a grade of 10.57 g/t Au, containing 460 662 ounces of gold (V. Baker, Teck–Corona Operating Corporation, personal communication, 2006).

GOLDEN GIANT MINE (NEWMONT CANADA LIMITED)

Production from the Golden Giant Mine in 2005 totalled 526 917 t milled at an average grade of 10.227 g/t Au containing 170 925 ounces of gold (J. Jeffries, Newmont Canada Limited, personal communication, 2006).

As of January 1, 2006, proven and probable reserves for the Golden Giant Mine were depleted. The Golden Giant Mine ceased production at the end of 2005 and closure is slated for late summer of 2006.

WILLIAMS MINE (WILLIAMS OPERATING CORPORATION)

Production from the Williams Mine (Teck Cominco Limited (50%) – Barrick Gold Corporation (50%)) in 2005 totalled 3 139 683 t milled at an average grade of 3.75 g/t Au (354 884 contained ounces of gold) (V. Baker, Williams Operating Corporation, personal communication, 2006).

As of January 1, 2006, proven and probable reserves totalled 20 389 290 t at a grade of 2.57 g/t Au (1 602 640 total contained ounces gold) (V. Baker, Williams Operating Corporation, personal communication, 2006). The Williams Mine is actively exploring to delineate the total resource on the mine property (V. Baker, Williams Operating Corporation, personal communication, 2006). The Williams Mine has stepped up exploration and has approval for an expanded open-pit operation. The mine will produce until 2012 and will be aggressive with both surface and underground exploration. The Williams Mine employs approximately 750 people *(The Chronicle-Journal*, March 27, 2004).

Platinum Group Elements

LAC DES ILES MINE (LAC DES ILES MINES LTD.)

In 2005, **North American Palladium Ltd.'s** Lac des Iles Mine milled 4 780 599 tonnes of ore from which it extracted 177 167 ounces of palladium, 18 833 ounces of platinum, 14 308 ounces of gold, 2 353 227 pounds of nickel, and 5 514 670 pounds of copper.

Exploration continues at the mine property to delineate and define resources at depth. In February 2005, 2 deep diamond-drill holes tested the down-plunge extension of the Offset High Grade zone. Both holes intersected the metapyroxenite, which is the host for the Main High Grade zone and the Offset High Grade zone at the expected depths. Hole 05-001 intersected less than 10 m of the metapyroxenite and returned assays of 5.25 g/t Pd and 0.52 g/t Pt over a cored distance of 3.1 m at an approximate vertical depth of 300 m. Hole 04-004 intersected approximately 8 m of the metapyroxenite at a vertical depth of 600 m. The intercept included minor sulphides and assayed 0.24 g/t Pd over 5.4 m (www.napalladium.com/lac_des_iles.shtml). Drilling of the Offset High Grade zone will continue.

Based on a feasibility study, the North American Palladium Ltd. Board of Directors approved underground development in March 2004. The underground portal was collared and the development of a ramp to access the Main zone ore body commenced in May 2004. Commercial production is expected to begin during the first quarter of 2006.

Once in full production, the underground mine will supply 2000 tonnes per day at an average grade of 6.62 g/t Pd. Eighty additional employees will be required once operations commence.

North American Palladium Ltd. also explored its Shebandowan Mine option in 2005 along the northwest strike extension of the Inco Shebandowan ore zone. A deep-penetrating ground electromagnetic survey was undertaken to refine drill targets. This will be followed up by diamond drilling to test for the presence of massive sulphides.

In January 2005, **North American Palladium Ltd.** optioned the Tyko and Bulldozer occurrences located about 30 km southeast of Manitouwadge, Ontario. The main Tyko occurrence contains net textured sulphides (pyrite, pyrrhotite and chalcopyrite) in variably serpentinized peridotite, pyroxenite and gabbro over 50 m widths and over 150 m of strike. Initial channel samples indicate that the mineralized zones contain 1.09% Ni, 0.51% Cu and 3.0 g/t Pt+Pd over 3 m and 0.77% Ni, 0.4% Cu and 1.05 g/t Pt+Pd over 9 m. A detailed versatile time-domain electromagnetic (VTEM) airborne survey was conducted in April 2005, with ground crews sent to the property in May to ground truth the VTEM results (www.napalladium.com/tyko.shtml).

EXPLORATION ACTIVITY

Mining Lands

In the Thunder Bay South District, there were 38 765 claim units staked, 4675 claim units cancelled, and a total of 12 836 active claims units as of December 31, 2005.

Exploration

East West Resource Corporation and associated companies (Canadian Golden Dragon Resources Ltd., Mega Uranium Ltd., and Canplats Resources Corporation) have a significant land position in the Thunder Bay area with claims in Shebandowan and the Nipigon Plate areas. These companies, under the direction of Robert Middleton, P.Eng., have been aggressively exploring for a variety of mineral deposits in these areas. Targets include volcanogenic massive sulphide (VMS) base metals, Cu-Ni-PGE in layered mafic to ultramafic complexes, uranium and iron oxide-copper-gold (IOCG), as well as porphyry and lode gold deposits. The central focus in 2005, within the Thunder Bay South District, has been the western Shebandowan belt (Hamlin, Deaty, Tilley and Vanguard), the Black Sturgeon Lake area of the Nipigon Embayment (Seagull and Disraeli intrusions), and various uranium properties (Greenwich Lake and others).

The Hamlin property is jointly owned by East West Resource Corporation (50%) and Mega Uranium Ltd. (50%), formerly Maple Minerals Corporation, and consists of a 77-claim block located in the vicinity of Hamlin Lake. The geology is favourable for the occurrence of both gold and VMS base metal deposits. It is situated on strike to the northeast with the recent Freewest Resources Canada Inc. VMS discovery in the vicinity of Wye Lake. Mineralization occurs as stringer chalcopyrite, pyrite, with minor molybdenite in an extensive brecciated felsic volcanic and/or quartz porphyry complex. Widespread chloritic alteration, rusty zones with chalcopyrite, and intense brecciation have been explored by stripping, sampling and diamond drilling after a detailed VTEM survey of the area.

East West Resource Corporation also completed a 1676 line-kilometres helicopter-borne time-domain EM survey of the Ardeen property, which outlined anomalies that represent possible VMS targets, shear zone targets and iron formations. Thirteen diamond-drill holes were bored to test 5 different areas on the Ardeen option. Underway is 50 km of geophysics (IP-resistivity), with more ground follow-up planned in 2006.

Further details on these projects are available from the East West Resource Corporation Web site (www.eastwestres.com/home.asp). A map depicting the various land holdings in the western Shebandowan belt can also be viewed (www.eastwestres.com/home.asp; under Properties, select Shebandowan Belt).

Canadian Golden Dragon Resources Ltd. has been active in exploring the Tilley Creek property, on the northern margin of the Shebandowan belt near Kashabowie, as well as the Seagull intrusion, in the Black Sturgeon Lake area of the Nipigon Embayment. The Shebandowan property includes the historic Vanguard deposits. In February 2003, a helicopter-borne time-domain EM survey outlined 11 new conductors, including the Vanguard East and West zones that were not detected in previous surveys. In February 2005, an additional Geotech VTEM airborne survey refined the 2003 survey, and the 11 targets were pared down to seven. These targets will be the subject to follow-up exploration. Diamond drilling at the Vanguard prospect commenced in late November 2005.

The Tilley Creek claims were flown with helicopter-borne time-domain EM survey in February 2005 and the 170 line-kilometre survey detected three to four conductors that are on strike with the existing copper-silver-gold occurrences. A drill hole to test one anomaly was completed in February 2005. Assays from this core yielded 4.5 ounces per tonne silver associated with 0.47% Zn, 0.328% Pb plus anomalous values of gold (0.273 g/t). Grab samples from the Tilley Creek ranged from 0.02% to 5.20% Cu, 0.19 to 4.08 g/t Au, and 13.2 to over 100 g/t Ag (Canadian Golden Dragon Resources Ltd., news release, May 6, 2005).

Continued exploration of the Seagull intrusion by Platinum Group Metals Ltd. resulted in the discovery of additional platinum- and palladium-rich layers within the complex. Platinum Group Metals Ltd. optioned the Seagull property from East West Resource Ltd. and Canadian Golden Dragon Resources Ltd. in September 2004.

According to the Platinum Group Metals Ltd. news release dated September 28, 2004, resampling of previous drilled core led to the discovery of 2 layers within the Seagull intrusion that assayed 4.10 g/t PGE+Au and 3.98 g/t PGE+Au. These zones, termed the Upper and Lower Reef Horizons, were discovered during detailed sampling by the Ontario Geological Survey (OGS). Subsequent due diligence sampling by Platinum Group Metals Ltd. has extended the zone over 700 m in an east-trending direction and for over 250 m in a north-trending direction. Follow-up diamond drilling in 2005 has shown that these reefs are continuous in nature with grades higher than expected. For further details, *see* Platinum Group Metals Ltd. (www.platinumgroupmetals.net/s/Home.asp); and for Canadian Golden Dragon Resources Ltd., *see* press releases filed with SEDAR® (SEDAR Home Page).

In 2005, **ValGold Resources Ltd.** continued to actively explore for gold in the Thunder Bay South District. Fourteen diamond-drill holes totalling 3523 m were bored at the Tower Mountain property in Conmee Township. The purpose of the holes was to further define the 4/36 and the U-V zones on the property. Drilling was completed in March 2005. All the holes intersected broad areas of alteration and gold mineralization.

In a press release dated January 30, 2006, ValGold announced a preliminary resource for its Tower Mountain gold property. The U-zone contains 2 152 460 inferred tonnes at 0.61 g/t Au for a calculated reserve of 1 319 408 g Au (42 420 ounces); the V-zone contains 2 353 902 inferred tonnes at 0.77 g/t Au for a calculated reserve of 1 811 412 g Au (58 238 ounces). The totals are 4 506 362 inferred tonnes at 0.69 g/t Au for a calculated reserve of 3 130 820 g Au (100 658 ounces). Further details on this property are available from ValGold Resources Ltd. (www.valgold.com/s/Home.asp).

ValGold Resources Ltd. was also active in the Saganaga Lake area where it optioned a gold property where previous work had delineated high-grade gold veins.

Moss Lake Gold Mines Ltd. released the results of its late fall 2004 drilling on the Moss Lake–Fountain Lake property in a March 4, 2005 press release. Drilling indicated the presence of widespread anomalous gold mineralization associated pyritic felsic volcanic rocks. The drilling has traced this pyritic volcanic sequence over a strike length of over 240 m. Induced polarization (IP) surveys indicate that this sequence does extend 1.5 km to the west and strikes under Fountain Lake to the east. Gold assays in this phase of drilling ranged from 1.13 g/t Au to a high of 6.55 g/t Au (www.mosslakegold.com).

RJK Explorations Ltd. and **GLR Resources Inc.** continued to be active in the Thunder Bay South District in 2005. Major exploration was undertaken on 3 properties within the area, namely the Lundmark occurrence in Conmee Township, the Stares–Calvert option in Aldina Township, and the Bemar–Cloverleaf property in the Saganagagons Lake area. **GLR Resources Inc.** conducted a ten-hole (729.5 m in total) diamond-drilling project on the historic Lundmark occurrence located on Holland Road north of Kakabeka Falls, Ontario. The holes were drilled to test a quartz vein system at the contact between a tonalite-granodiorite intrusive and Archean metavolcanic rocks. The program tested the vein structure for a strike length of 100 m and to shallow depths. The vein system contains copper, gold and molybdenite (GLR Resources Inc., news releases, November 2005 and January 2006, available from Canada NewsWire Group (CNW Group Home Page)). The occurrence was discovered around 1917 and historical work consisted of surface trenching and the sinking of a 4 by 8 foot shaft to a depth of 47 feet. A 270-pound bulk sample was sent to Ottawa in 1918 that returned a result of 1.29% molybdenum.

RJK Explorations Ltd. completed a VTEM "Dreamcatcher" airborne electromagnetic survey over the Bemar–Cloverleaf property in the western Shebandowan belt. This property is situated south of the recent VMS discovery by Freewest Resources Canada Inc. at Wye Lake. The survey results indicate the presence of numerous electromagnetic anomalies within a highly prospective assemblage of mafic pillowed lavas, rhyolite flows, tuffs and breccias (RJK Explorations at www.kasnergroupco.com/update/home.html). **RJK Explorations Ltd.** also plans to continue diamond drilling on the Stares–Calvert option in Aldina and Sackville townships to test a 700 m long target within the favourable horizon in which they located massive VMS (copper, zinc, silver, lead) mineralization in place.

Navasota Resources Ltd. continues to explore the Stenlund property located in the Heron Bay area. Diamond drill results from late winter drilling at the property were released in February 2005. Highlights of the drilling include 18.28 g/t Au and 47.18 g/t Ag over 4.0 m in Hole ST04-01, and 6.68 g/t Au and 60.1 g/t Ag over 1.5 m in Hole ST04-03. A summary table of the drill results, as well as property descriptions and history can be viewed on the company Web site (www.navasota.com/s/home.asp).

Beaufield Consolidated Resources Inc. has discovered a significant Mobile Metal Ion (MMI) geochemical gold anomaly on its property located west of and on strike with the Hemlo gold mines. The anomaly is greater than 40 times background and is situated within the Hemlo shear zone 15 km west of the Hemlo mines. The anomaly has a strike length of 200 m and is situated within a broader 400 by 500 m anomaly that defines the Hemlo shear zone. Overburden in the area is 40 m or more thick. The company plans a drilling program to test the anomaly in 2006 (*Canada Stockwatch*, December 21, 2005).

Freewest Resources Canada Inc. is continuing exploration of its Wye Lake VMS discovery on the Sungold property in the western Shebandowan belt. The discovery is situated between Wye Lake and Redfox Lake approximately 120 km west of Thunder Bay, Ontario. In a press release dated December 6, 2005, Freewest stated:

> "To date, the Company has completed 23 drill holes along a one-kilometre strike length at the Wye Lake copper-zinc occurrence. Drilling has been completed to a maximum vertical depth of about 150 metres, with the mineralized horizon remaining open along strike and to depth. It has intersected a classic high-temperature, volcanic-hosted massive sulphide (VHMS) mineralizing system. Such a system is hosted within chloritized felsic to intermediate fragmental rocks and exhalite and comprises replacement-type massive copper-zinc-pyrrhotite mineralization as well as stringer-type copper-pyrrhotite mineralization.
>
> "Highlighting the drill results are drill intercepts of **6.21% zinc over 4.43 metres** (WL05-02), **1.22% copper over 5.78 metres** (WL05-07), **5.09% zinc over 2.15 metres** (WL05-08), **1.74% copper over 3.00 metres** (WL05-13) and **2.16% copper and 6.91% zinc over 0.43 metres** (WL05-15). Although the calibre of the volcanic-hosted massive sulphide mineralization is of high quality, the intersected widths of such mineralization have been relatively narrow (up to 2 metres in several intersections). [emphasis added]
>
> "In addition, Freewest Resources Canada Inc. has also completed two borehole electromagnetic surveys to aid in delineating massive sulfide pods in the vicinity of the drill holes. Several anomalies have been detected and further diamond drilling will be undertaken to test the down plunge extension of the favorable horizon in order to discover thicker zones of sulfide mineralization."

Phoenix Matachewan Mines Inc. conducted a preliminary drilling program on its Steel River property by drilling 11 holes for a total of 1683 m. The drill targets were strong anomalies resulting from ground geophysics (EM). The analytical results indicate a widespread base metal anomaly with zinc values peaking at 7.0% over 1.2 m in drill hole PS0507 within an extensive zone of anomalous zinc that assayed 0.58% over 39 m. Typical VMS alteration was encountered in all of the holes drilled thereby indicating that the area has tremendous potential for VMS deposits (for further drilling results, *see* www.phoenixmatachewan.com).

Nickel-Copper-Platinum Group Element Exploration

Marathon PGM Corporation continued its diamond-drill program on its Marathon property, which is located approximately 10 km north of Marathon, Ontario. The 2005 drilling program consisted of 102 holes totalling 14 000 m. This drilling was able to extend the mineralization in the Main zone as well as the Malachite zone, BR zone and the RD zones. On March 30, 2005, Marathon PGM Corporation announced new resource estimates (*see* table below). In light of the new drilling, the resources estimates will be upgraded in early 2006 (for further details, *see* www.marathonpgm.com).

RPA 2004 Resource, 0.8 g/t Pd Cut-off Grade (Main Zone)					(^{a} ×10^{6}; ^{b} ×10^{3})		Contained Metals		
Category	Tonnes[a]	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Pd (oz)[b]	Pt (oz)[b]	Au (oz)[b]	Cu (oz)[a]
Mineral Resource at 0.8 g/t Pd Cut-off Grade									
Measured	5.6	1.28	0.31	0.10	0.34	232	56	18	42.3
Indicated	18.6	1.20	0.31	0.10	0.38	718	186	60	156.0
Measured + Indicated	24.3	1.22	0.31	0.10	0.37	950	242	78	198.3
Inferred	2.3	1.42	0.60	0.13	0.25	105	44	9	12.7
P&E 2005 Resource, All Zones 0.8 g/t Pd Cut-off Grade									
Measured	8.0	1.37	0.33	0.11	0.39	354	85	28	69
Indicated	15.0	1.38	0.35	0.12	0.39	667	169	58	129
Measured + Indicated	23.1	1.38	0.34	0.12	0.39	1 021	254	86	198
Inferred	8.4	1.46	0.37	0.12	0.38	394	100	32	72

Kennecott Canada Exploration, Inc. has acquired mining claims in the Gorham Township area. Early this summer, an airborne geophysical survey was flown to locate targets for exploration. A recent diamond-drilling program tested these targets for their copper-nickel-PGM potential.

MetalCORP Ltd. continued with its mineral exploration program at the Big Lake property (UTM: 561826E, 5381187N, NAD27, Zone 16) located approximately 20 km southeast of Marathon, Ontario. MetalCORP's program for 2005 included continued diamond drilling, detailed geological mapping, and a detailed airborne geophysical survey. This work has resulted in defining additional targets for copper-nickel-PGM exploration. Drilling on the A2-Cu-Ni zone was able to trace the zone on strike and to a depth of 20 m. Drill results indicate 1.7% Ni and 1.4% Cu over narrow intercepts. Drilling on the J4 and J5 zones have traced these for a strike length of 1500 m and to a 200 m depth. Drill results indicated 0.9g/t Pt, 1.0 g/t Pd, 0.2% Cu and 0.2% Ni over 1.5 m.

A third mineralized discovery, the BL14 zone, probably unrelated to the copper-nickel-PGM system, has been interpreted to be a copper stringer zone associated with a VMS hydrothermal system. The zone is made up of bands, veins and stringers of chalcopyrite and pyrite, and contains up to 5% disseminated sphalerite with minor galena. Assays of drill core yielded up to 2.5% Cu, 1.0% Zn, 46.0 g/t Ag, 1.6 g/t Au and 0.1% Pb across 0.9 m (MetalCORP Ltd., new releases, 2005).

Exploration continues on the property in 2006.

Benton Resources Corp. conducted prospecting, stripping and trenching, coupled with channel sampling on the Bermuda property in 2005. An airborne magnetic–electromagnetic survey (Geotech VTEM) was flown over the property to further delineate diamond-drill targets. A diamond-drilling program has encountered wide widths of copper mineralization, and precious metal (platinum+palladium+gold) values ranging from 1.0 g/t to over 5.0 g/t. Mineralization has been traced across the entire length of the property, a distance of more than 16 km. Exploration will continue into 2006 (Benton Resources Corp., news releases, 2005; *see* www.bentonresources.ca/s/Home.asp for further details).

Uranium Exploration

Rampart Ventures Ltd. has entered into an agreement with **New Shoshoni Ventures Ltd.** on the Wolfpup Lake and Black Sturgeon West uranium properties in the Nipigon Basin, northeast of Thunder Bay. Rampart Ventures Ltd. announced the results of a preliminary phase of its diamond-drilling program at the Split Rapids occurrence, located east of Black Sturgeon Lake. The drill intercepts include 2.99% U_3O_8 over 1.5 m, 1.99% U_3O_8 over 0.30 m, 0.56% U_3O_8 over 0.30 m, 0.54% U_3O_8 over 0.30 m and 0.12% U_3O_8 over 3.52 m. The intersection in Hole BS05-30, 2.99% U_3O_8 over 1.5 m, consisted of 4 pitchblende veins in a hematite-altered host rock. Prospecting and stripping have located 8 new uranium occurrences associated with an iron formation over a strike length of 750 m (Rampart Ventures Ltd., news release, October 31, 2005).

Benton Resources Corp. controls approximately 500 claim units in the Nipigon Embayment near Black Sturgeon Lake area. These claims cover several large airborne radiometric and gravity anomalies associated with the Sibley Group–Archean basement unconformity.

Mega Uranium Ltd. and **East West Resource Corporation** have optioned 2 uranium properties in the Greenwich Lake area, approximately 53 km northeast of Thunder Bay, Ontario. Access to the western portion of the property has been enhanced by recent logging roads.

Diamond Exploration

Ripple Lake Diamonds Inc. discovered 3 microdiamonds in November 2003 in a small 3 by 3 m diatreme associated with a calc-alkalic lamprophyre (minette) dike, located on the Trans-Canada Highway approximately 30 km west of Marathon. While Ripple Lake Diamonds states that the small diatreme has little economic significance on its own, the presence of diamonds indicates diamond-bearing mantle and significantly enhances the diamond potential of the area. Based on this discovery, Ripple Lake Diamonds Ltd. staked 2500 claim units in 182 claims. Additional staking was undertaken in 2005 and now the company holds over 3000 claim units following an north-trending corridor, a portion of the Trans-Superior tectonic zone. Exploration planned for 2005 included the sampling of the most recently acquired claims, a detailed airborne magnetometer and electromagnetic survey at 150 m line spacing, totalling approximately 5000 line-kilometres, defining drill targets from the data and drilling the targets.

Table 2. Assessment files received in the Thunder Bay South District in 2005.

Abbreviations

AEM	Airborne electromagnetic survey	IP	Induced polarization survey
AM	Airborne magnetic survey	Lc	Linecutting
ARA	Airborne radiometric survey	Met	Metallurgical testing
Beep	Beep Mat survey	OD	Overburden drilling
Bulk	Bulk sampling	ODH	Overburden drill hole(s)
DD	Diamond drilling	PEM	Pulse electromagnetic survey
DDH	Diamond drill hole(s)	PGM	Platinum group metals
DGP	Down-hole geophysics	Pr	Prospecting
GC	Geochemical survey	RES	Resistivity survey
GEM	Ground electromagnetic survey	Samp	Sampling (other than bulk)
GL	Geological Survey	Seismic	Seismic survey
GM	Ground magnetic survey	SP	Self-potential survey
GRA	Ground radiometric survey	Str	Stripping
Grav	Gravity survey	Tr	Trenching
HLEM	Horizontal loop electromagnetic survey	UG	Underground exploration/development
HM	Heavy mineral sampling	VLEM	Vertical loop electromagnetic survey
IM	Industrial mineral testing and marketing	VLFEM	Very low frequency electromagnetic survey

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Aldina and Sackville townships (Stares–Calvert Property)	RJK Explorations Ltd/ GLR Resources Inc.	2005	IP	2.29772	52A05/NW-062
Aldina Township	Calvert, D./ Calvert, D.	2004	Str	2.28519	52A05/NW-061a,b
Black River (Black River Project)	1179406 Ontario Ltd.	2005	AEM, AM	2.29485	42C13/NW-016, 42C13/SW-122
Bomby Township (Hemlo Property)	Golden Meadow Exploration Inc./ Skogsberg, R./ Lambert, K.	2004	IP, GM, Lc	2.30444	42C12/NW-121
Bomby Township (Williams Mine)	Barrick Gold Inc./Reukl, R./ Teck Cominco Limited	2004	DD	2.28546	42C12/NW-120
Brothers Township (White River Property)	Lac Exploration Inc.	2003	DD, Samp	2.28160	42C12/NW-118a,b
Brothers Township (White River Property)	Lac Exploration Inc.	2003	IP	2.28167	42C12/NW-119
Burchell Lake (Burchell Lake Claim Group)	East West Resource Corporation/ Maple Minerals Corp.	2004–2005	AEM, AM	2.29115	52B10/SE-169
Burchell Lake (Burchell Property)	Maple Minerals Corp.	2003–2005	DD, Samp	2.29118	52B10/SE-168
Burchell Lake (Burchell Lake Property)	Ternowesky, J./ Fogen, M.	2004	Pr	2.28112	52B10/SE-165a-b
Burchell Lake (Coldstream Property)	Alto Ventures Ltd.	2004	GL, Samp	2.28229	52B10/SE-164a-c
Burchell Lake (Coldstream Property)	Alto Ventures Ltd.	2004–2005	Petrography, Samp	2.29599	52B10/SE-170
Cecil Township (Faries Lake Property)	Gionet, G./Gionet, M.	2003	DD, Samp	2.28808	42F04/SE-031
Cecil Township (Rawluk Lake Property)	Gionet, G.	2004	Pr, Str, Tr	2.29798	42F04/SE-033
Conacher Township (Shebandowan Property)	Band-Ore Resources Ltd.	2003	DD, Samp	2.28735	52B09/NE-075
Conacher Township (Swamp River Property)	East West Resource Corporation	2005	IP, Lc	2.30486	52B09/NE-076
Conmee Township (Tower Mountain Property)	Stewart, M.	2003	DD, Samp	2.28687	52A12/SE-032

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Crayfish Lake (Vanguard Property)	Canadian Golden Dragon Resources Ltd.	2005	DD	2.29839	52B10/NE-019
Crayfish Lake and Ames Township (Vanguard Property)	Canadian Golden Dragon Resources Ltd.	2005	DD, Samp	2.30301	52B10/NE-020
Dawson Road Lots (Dawson Road Property)	Kukkee, K.	2004	Pr, Str, Samp	2.28622	52A12/SW-126
Dawson Road Lots (Gold Cache Property)	Kukkee, P.	2004	Str, Samp	2.27687	52A12/SW-124
Dawson Road Lots (Gold Cache Property)	Kukkee, P.	2005	Str, Samp	2.29996	52A12/SW-132
Duckworth and Moss townships	Fournier, E. / Haavaldsrud, B. / Starr, E. / Bahlieda, W. / 1022260 Ontario Limited	2004	AEM, AM	2.28884	52B09/SE-126
Duckworth Township (Goldcreek Property)	Ternowesky, J.	2004	Samp	2.28767	52B09/SE-125a-b
Fluor Island	Platinum Group Metals Ltd. / Fenwick, K.	2005	GL	2.30008	52A09/NE-005
Fluor Island and Laurie Lake (Moss Lake Property)	Fenwick, K. / Platinum Group Metals Ltd.	2005	Grav	2.29353	52A09/NE-004, 52A09/NW-003
Freeborn Township	Pitkanen, R. / Moffat, R.	2005	Str, Samp	2.30312	52B13/SE-043
Freeborn Township (Blackfly Property)	Fenwick, K.	2004	DD	2.29450	52B13/SE-042
Freeborn Township (Blackfly Property)	Fenwick, K.	2004	GEM, GM, Lc	2.29452	52B13/SE-041
Freeborn Township (Blackfly Property)	Fenwick, K.	2004	GM	2.28144	52B13/SE-040
Gertrude and Cecil townships (Twisted Lake Road Property)	Henriksen, G.	2004–2005	Pr, Samp	2.30393	42F04/SE-035
Gertrude and Cecil townships (Twisted Lake Road Property)	Henriksen, G.	2005	Pr, Samp	2.30419	42F04/SE-034, 42F04/NE-068
Gillard Lake (Roaring River Property)	Lac des Iles Mines Ltd.	2004	DD, Samp	2.28328	52H12/NW-007a,b
Gillard Lake (Roaring River property)	Lac des Iles Mines Ltd.	2004	IP	2.28329	52H12/NW-008a,b, 52H12/SW-021
Gravel River (Nagunagisic Zn-Pb-Cu Prospect)	Reukl, R.	2002	GC, Samp	2.28743	42E04/SE-010
Hagey and Haines townships (Amp Lake Project)	D'Silva, B.	2004	GL, Str, Samp	2.28523	52B09/NW-092
Haines and Begin townships (Shebandowan Project)	Lac des Iles Mines Ltd. / Clark, G. / Eveleigh, A. / Hackl, J. / Loch Erne Mines Limited	2004–2005	DD, Samp	2.30306	52B09/SW-070a,b, 52B09/NW-101
Haines and Hagey townships (Martin Bay Project)	D'Silva, B. / Parker, D.	2004	GL, Lc, Samp	2.28531	52B09/NW-093
Haines Township (Crayfish Property)	Hackl, J. / Hackl, J.	2005	Str, Samp	2.29765	52B09/NW-099
Haines Township (Peninsula Property)	Hackl, J. / Hackl, J.	2004	Pr, Samp	2.28804	52B09/NW-094

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Hames Township (Vanguard Property)	Canadian Golden Dragon Resources Ltd.	2004	AEM, AM	2.29020	52B09/NW-097
Hames Township (Vanguard Property)	Canadian Golden Dragon Resources Ltd.	2004–2005	GL	2.29021	52B09/NW-096
Horne Township (Gold Cache Property)	Kukkee, P.	2004	Str, Tr, Samp	2.28004	52A12/NW-125
Horne Township (Gold Cache Property)	Kukkee, P.	2005	Str, Samp	2.30197	52A12/SW-131
Horne Township (Gold Cache Property)	Kukkee, P.	2005	Str, Samp	2.29882	52A12/SW-133
Hutchinson Township (Central Canada Property)	Fenwick, K. / Bjorkman, K.	2004–2005	Str, Samp	2.30338	52B14/SW-069
Katashk Lake (Badger Property)	Gitennes Exploration Inc. / Fairservice, R.	2002	DD, Samp	2.27904	52H05/NE-004
Kashabowie Lake (Vanguard Property)	Canadian Golden Dragon Resources Ltd.	2003–2004	GL, Manual/ Mechanical, Tr, Samp	2.30498	52B09/NW-100
Kashabowie Lake (Vanguard Property)	Canadian Golden Dragon Resources Ltd.	2004	DD, Samp	2.29307	52B09/NW-098
Kashabowie Lake (Vanguard Property)	Canadian Golden Dragon Resources Ltd.	2004	DD, Samp	2.29508	52B09/NW-095
Kitchen Lake	Fairservice, R.	2005	Samp	2.30208	52H11/SW-014
Kitchen Lake (Lynx Lake Project)	Fairservice, R.	2004	Pr, Samp	2.29777	52H11/SW-013
Klotz Lake (Solarus Gold Project)	Forbes, J.	2004	DD, Samp	2.28604	42F13/SW-031
Lac des Iles (Lac des Iles Mine)	Lac des Iles Mines Ltd.	2000	DD, Samp	2.22743	52H04/NE-043
Lac des Iles (Lac des Iles Mine)	Lac des Iles Mines Ltd.	2000	DD, Samp	2.23778	52H04/NE-044
Lac des Iles (Lac des Iles Mine)	Lac des Iles Mines Ltd.	2000	DD, Samp	2.23510	52H04/NE-045
Lac des Iles (Lac des Iles Mine)	Lac des Iles Mines Ltd.	2000	DD, Samp	2.24265	52H04/NE-046
Lac des Iles (Lac des Iles Mine)	Lac des Iles Mines Ltd.	2000	DD, Samp	2.24424	52H04/NE-047
Lac des Iles (Lac des Iles Mine)	Lac des Iles Mines Ltd.	2000	DD, Samp	2.24170	52H04/NE-048
Lac des Iles (Lac des Iles Mine)	Lac des Iles Mines Ltd.	2000	DD, Samp	2.24442	52H04/NE-049
Lac des Iles (Lac des Iles Mine)	Lac des Iles Mines Ltd.	2000	DD, Samp	2.24642	52H04/NE-050
Lac des Iles (Lac des Iles Mine)	Lac des Iles Mines Ltd.	2000	DD, Samp	2.24814	52H04/NE-051
Lac des Iles (Lac des Iles Property)	AntOro Resources Inc.	2004	GL, Samp	2.29111	52H04/NE-039
Lamport and Duckworth townships (Haavaldsrud Property)	Fournier, E. / Haavaldsrud, B.	2004	GL, Lc, Samp	2.28615	52B09/SE-123
Laurie and Blackwell townships (Wedge Project)	RJK Explorations Ltd. / Hinterland Exploration Ltd.	2003	DD, Samp	2.28916	52A12/SW-128
Laurie and Blackwell townships (Wedge Project)	RJK Explorations Ltd. / Hinterland Exploration Ltd.	2003	DD, Samp	2.29751	52A12/SW-130

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Laurie Township (Golden Falls Property)	Kukkee, K.	2005	Pr, Samp	2.30051	52A12/SW-129
Laurie Township (Golden Falls Property)	Kukkee, K.	2005	Str, Samp	2.30588	52A12/SW-134
Laurie Township (Moose Calf Property)	Hackl, J./Hackl, J.	2004	Pr, Str, Samp	2.28843	52A12/SW-127a,b 52B09/SW-124
Leckie Lake (Seagull Property)	East West Resource Corporation/ Canadian Golden Dragon Resources Ltd.	2004	DD, Samp	2.29915	52H02/SW-030
Leckie Lake (Seagull Property)	East West Resource Corporation/ Canadian Golden Dragon Resources Ltd.	2004	Grav	2.29172	52H02/SW-028, 52H03/SE-012, 52A15/NW-011
Leckie Lake (Seagull Property)	East West Resource Corporation/ Canadian Golden Dragon Resources Ltd.	2004–2005	DD, Samp	2.30922	52H02/SW-031
Leckie Lake (Seagull Property)	East West Resource Corporation/ Canadian Golden Dragon Resources Ltd.	2005	DD	2.29194	52H02/SW-029
Leckie Lake (Wolf Mountain Project)	East West Resource Corporation/ Canadian Golden Dragon Resources Ltd.	2004	Samp	2.28669	52H02/SW-027
Lecours and Pic townships (Joa Property)	Beaufield Consolidated Resources Inc.	2004	GM	2.28333	42D09/NE-121a,b
Little Sturge Lake	Thompson, T.	2003–2004	Pr, Samp	2.30014	52H02/NW-018
Lorna and Seeley lakes (Page Lake Property)	Michano, D./ Moses, P./ Gionet, B.	2004	Pr, Str, Samp	2.28835	42D16/SW-122, 42D16/SE-056
Lorna Lake (Smoke Lake Property)	Bond, J./Michano, D./Moses, P./ Renner, R./ Canalaska Ventures Ltd./Fenwick, K./ Freewest Resources Canada Inc.	2004	DD, Samp	2.29810	42D16/SE-058
Lorna Lake (Smoke Lake Property)	Bond, J./Michano, D./Moses, P./ Renner, R./Gionet, B./Fenwick, K./ Freewest Resources Canada Inc.	2004	GL, Samp	2.29537	42D16/SE-057, 42D16/NE-035, 42D16/SW-125
MacGregor Township	Ciccarelli, M.	2004–2005	Manual/ Mechanical	2.29909	52A06/NE-007
MacGregor Township	Stone, T./ Stone, A.	2003–2004	Str	2.28907	52A10/SW-032
McCoy Township (Black Granite Property)	Yozipovic, T.	2004	Report	2.28547	42D16/SW-124
McCoy Township (Marathon Black Granite Property)	Stares, M.	2004	Pr, Samp	2.28684	42D16/SW-123
McGill Township (TYKO Project)	Lac des Iles Mines Ltd./ Halverson, L./Mealey, W./ Ternowesky, J.	2005	AEM, AM	2.29920	42C13/NE-016, 42C14/NW-012
McTavish Township	Anderson, C.	2005	Str	2.30291	52A10/NE-071
McTavish Township	Bak, D.	2004–2005	Str	2.29215	52A10/NE-070
McTavish Township	Stone, E./ Stone, A.	2003–2004	Str	2.28908	52A10/NE-069
McTavish Township (Big Pearl Lake Amethyst Mine)	Kowtuski, L./ Breezy Mountain Amethyst Mines Ltd.	2004	GL	2.28537	52A10/NE-067
McTavish Township (Big Pearl Lake Property)	Kowtuski, L.	2004	Pr, Str	2.28707	52A10/NE-068
McTavish Township (Big Pearl Lake Property)	Kowtuski, L.	2005	Pr, Samp	2.30135	52A10/NE-072

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Miranda Lake (Atikokan West Project)	Bjorkman, K. / Bjorkman, J. / Bjorkman, K.	2004	DD, Samp	2.29280	52B13/SW-029
Miranda Lake (Sunshine Property)	Bjorkman, K. / Redstar Gold Corp.	2004	GL, Samp	2.28252	52B13/SW-028a-c, 52C16/SE-009a,b, 52B12/NW-009a,b
Miranda Lake (Sunshine Property)	Bjorkman, K. / Redstar Gold Corp.	2004	GL, Samp	2.29762	52B13/SW-030a,b, 52B12/NW-010, 52C16/SE-010
Moss and Ames townships, Burchell Lake (Obadinaw Claims)	East West Resource Corporation/ Maple Minerals Corp.	2005	AEM, AM	2.30780	52B10/SE-172a,b, 52B10/NE-021
Moss Township (Ardeen Property)	Pele Gold Corporation	2003	Samp	2.27833	52B10/SW-099
Moss Township (Ardeen Property)	Pele Gold Corporation	2004–2005	DD, Samp	2.30344	52B10/SW-108a-c
Moss Township (Larose Property)	Freewest Resources Canada Inc.	2003–2004	GC, Lc, Samp	2.29726	52B10/SW-103
Moss Township (Larose Property)	Freewest Resources Canada Inc.	2003–2004	GM, IP	2.29727	52B10/SW-104
Moss Township (Larose Property)	Freewest Resources Canada Inc.	2004	DD, Samp	2.30136	52B10/SW-106
Moss Township (Moss Lake Area Properties)	Pele Gold Corporation	2004	Compilation	2.28719	52B10/SW-100, 52B10/SE-166a,b
Moss Township (Mystery Gold Property)	Murgor Resources Inc.	2004	IP, Lc	2.29623	52B10/SW-105
Moss Township (Shear Property)	East West Resource Corporation/ Maple Minerals Corp.	2004	GL	2.28045	52B10/SE-167a,b
Moss Township (Shear Property)	East West Resource Corporation/ Maple Minerals Corp.	2005	GEM, GM, Lc	2.29141	52B10/SE-171
Moss Township and Tilly Lake (Tilly and Hamlin–Powell Groups)	Canadian Golden Dragon Resources Ltd / Kwiatkowski, R. / Kwiatkowski, D.	2004	AEM, AM	2.29393	52B10/SW-101, 52H07/NW-67a,b
Mussy Lake and Pic Township (Big Lake Property)	MetalCORP Limited	2004	Pr, Samp	2.28902	42D09/SE-020
North Lac des Iles	Lac des Iles Mines Ltd.	2003–2004	DD, Samp	2.28866	52H04/NE-038
Norway Lake (Lumby Lake Property)	Atikokan Resources Inc.	2002–2003	Bulk, Manual/ Mechanical, Samp	2.28542	52G03/SW-052
Norway Lake (Lumby Lake Property)	Saunders, D.	2005	IP, Lc	2.29706	52G03/SW-053
O'Neill Township and Seeley Lake (Marathon PGM-Cu Project)	Marathon PGM Corporation	2005	GM, IP, RES	2.30203	42D16/SW-127
Onion Lake	Friborg, G.	2005	Manual/ Mechanical	2.30389	52A11/SE-030
Pardee Township	Luski, M.	2004	Pr, Samp	2.29449	52A04/SE-082a,b
Pays Plat Lake (Nickel Royale Property)	Fowler, B.	2004	DD	2.28626	42D14/NW-077
Pays Plat Lake (Nickel Royale Property)	Fowler, B.	2004	GM	2.27531	42D14/NW-076
Pic Township (Heron Bay Property)	Wahl, R.	2004–2005	Pr, Samp	2.30325	42D09/NW-130

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Pic Township (Toothpick West Property)	Barrick Gold Inc.	2002	DD, Samp	2.28261	42D09/NW-129
Pickerel Lake North (Nym Lake Property)	Band-Ore Resources Ltd.	2004	GL, Samp	2.28805	52B11/NW-018
Powell and Tilly lakes (Hamlin Claims)	East West Resource Corporation/ Maple Minerals Corp.	2004	GL	2.28044	52B07/NW-062
Powell and Tilly lakes (Tilly and Hamlin–Powell Groups)	East West Resource Corporation/ Maple Minerals Corp.	2004	AEM, AM	2.29246	52B07/NW-068a,b, 52B10/SW-102
Powell Lake	Hackl, J./Hackl, J.	2001–2004	Pr, Samp	2.27347	52B07/NW-063
Powell Lake (Hamlin Property)	East West Resource Corporation/ Maple Minerals Corp.	2004	DD, Samp	2.29120	52B07/NW-066
Powell Lake (Hamlin Property)	East West Resource Corporation/ Maple Minerals Corp.	2005	DD, Samp	2.29234	52B07/NW-069
Powell Lake (Hamlin Property)	East West Resource Corporation/ Maple Minerals Corp.	2005	DD, Samp	2.29900	52B07/NW-071
Powell Lake (Home Lake Property)	Kulp, J.	2004	Pr, Samp	2.29556	52B07/NW-070
Powell Lake (Powell Lake Property)	Sutyor, F./Kulp, J./Sutyor, L.	2002–2004	Pr, Samp	2.28314	52B07/NW-064
Powell Lake (Sungold Property)	Hackl, J./Hack, J./ Freewest Resources Canada Inc.	2005	Pr, Samp	2.29533	52B07/NW-072a-c
Powell Lake (Sungold Property)	Freewest Resources Canada Inc.	2004	GC, IP, Lc, Samp	2.28756	52B07/NW-065
Powell Lake (Sungold Property)	Freewest Resources Canada Inc.	2005	GEM, GM, VLFEM	2.30877	52B07/NW-074a,b, 52B07/SW-030
Powell Lake and Moss Township (Hamlin and Powell Claims)	East West Resource Corporation/ Maple Minerals Corp.	2005	DD, Samp	2.30686	52B07/NW-073, 52B10/SW-107
Priske Township	Kravchik, S.	2004	Pr, Samp	2.28584	42D14/SE-120, 42D14/SW-050
Priske Township (Worthington Bay Property)	Renner, R.	2003–2004	Pr, Samp	2.28335	42D14/SW-049
Rightangle Lake (East Lac des Iles Project)	Platinum Group Metals Ltd./ East West Resource Corporation	2003	GC	2.28529	52H06/SE-013, 52H03/NE-017
Rightangle Lake (Pebble Property)	East West Resource Corporation/ Platinum Group Metals Ltd.	2005	DD	2.29529	52H03/NE-018
Roberta Township (Moshkinabi Property)	Gionet, R.	2004	Pr, Tr	2.28943	42F04/SE-032
Rope and Pays Plat lakes (Big Duck Lake Property)	Noble, T./Stares, M./Stares, S./ Walstern, D./ Gray, W.	2003	GL, Manual/ Mechanical, Tr, Samp	2.28569	42E03/SW-050, 42D14/NW-078
Saganagons Lake (Wolf Track Property)	Stares, M.	2002	Pr, Str, Samp	2.27524	52B07/SW-029
Sawbill Bay (Stewart and Sande Property)	Sande, D./ Stewart, E.	2002–2004	Str, Samp	2.28533	52B14/NW-034
Seeley Lake (Bermuda Property)	Benton Resources Corp.	2004	DD, Samp	2.29566	42D16/SW-126a,b
Seeley Lake (Geordie Lake Property)	L.E.H. Ventures Ltd.	2001–2003	DD, Samp	2.28081	42D16/SW-121
Senga Lake (Taman Property)	Platinum Group Metals Ltd.	2000–2003	GL, Str, Samp	2.28153	52H04/SW-017

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Shabotik River (Shabotik Property)	Lac des Iles Mines Ltd / Halverson, L.	2005	Pr, Samp	2.30448	42C14/NW-013
Sharp Lake (Mirage Lake Property)	Morehouse, W / Richmond, W.	2004	GL, Samp	2.28123	52G01/NE-013, 52G08/SE-007
Sharp Lake (Mirage Lake Property)	Richmond, W / Morehouse, W.	2005	Pr, Samp	2.30265	52G01/NE-014, 52G08/SE-008
Shelby Lake (Legris Lake Property)	Fenwick, K.	2004–2005	AEM, AM, VLFEM	2.30603	52H04/SE-035, 52H04/NE-042, 52H03/SW-017, 52H03/NW-027
Shelby Lake (Legris Lake Property)	Fenwick, K.	2005	DD, Samp	2.30440	52H04/SE-034, 52H03/SW-016, 52H04/NE-041
Shelby Lake (Shelby Lake Property)	Fairservice, R / O'Toole, J.	2002	DD, Samp	2.28904	52H04/SE-033
Shelby Lake (South Legris Lake Property)	Canadian Golden Dragon Resources Ltd /Tweedie, R / Fenwick, K.	2002–2003	DD, Samp	2.28968	52H04/SE-032
Syine Township	Kravchik, S.	2004	Pr	2.29607	42D14/SE-122
Syine Township	Kravchik, S.	2004	Pr, Samp	2.27505	42D14/SE-121
Syine Township (Jackfish Lake Property)	Bond, J /Renner, R /Wahl, R.	2003	Pr, Samp	2.28095	42D15/SW-099
Syine Township (Santoy Lake Property)	Fowler, B.	2004	GM, Pr, Lc	2.28897	42D15/SW-100
Tartan Lake	Grieve, M.	2005	Manual/ Mechanical	2.30591	52A10/SW-033, 52A10/NW-033
Tartan Lake	Siltamaki, A / Furlotte, R.	2002–2003	Str	2.28577	52A10/NW-032
Tartan Lake	Siltamaki, A / Erickson, R.	2003–2004	Tr	2.28895	52A10/NW-031
Tib Lake (Buck Lake Property)	Richmond, W.	2004	DD, Samp	2.29492	52H04/NW-044
Tib Lake (East Dog River Property)	Morehouse, W / Richmond, W.	2005	Pr, Samp	2.30161	52H04/NW-045a,b
Tuuri and Syine townships (Fire Mountain West Property)	Bond, J /Renner, P / Wahl, R.	2002–2004	Pr, Samp	2.28306	42D15/SW-102a,b
Tuuri and Syine townships (Steel River Project)	Bond, J / Michano, D /Moses, P / Renner, R /Wahl, R /Fenwick, K /Gionet, B., George, A / Phoenix Matachewan Mines Inc.	2004–2005	GC	2.29209	42D15/SW-102a,b
Tuuri Township (Fire Mountain Property)	Bond, J / Renner, R.	2004	GL, Samp	2.28817	42D15/SW-103
Upper Aguasabon Lake (Cameron Lake Property)	Fowler, B.	2004	GM, Pr, Lc, Samp	2.28898	42E03/SE-021
Upper Aguasabon Lake (Little Harvey Lake Property)	Daniels, G / Richards, W / Johnson, D.	2004	Pr, Str, Tr, Samp	2.28912	42E03/SE-022a,b
Walsh Township (TCH Diamond Project)	Bond, J / Michano, J. / Michano, W / Renner, R / Ternowesky, J / Wahl, R / Ripple Lake Diamonds Inc.	2004	GL, GM, Petrography, Pr, Lc	2.28851	42D15/SE-083, 42D15/SW-104
Weaver Township	Morehouse, W.	2004	DD, Samp	2.28721	52B14/SE-043
Weaver Township	Morehouse, W.	2005	DD	2.30592	52B14/SE-044
White Lake South (White Lake Property)	AntOro Resources Inc.	2003–2004	GL, DD, Samp	2.29626	42C12/NE-059a,b

Table 3. Exploration activity in the Thunder Bay South Resident Geologist District in 2005 (keyed to Figures 1 and 2).

Abbreviations

AEM	Airborne electromagnetic survey	IP	Induced polarization survey
AM	Airborne magnetic survey	Lc	Linecutting
ARA	Airborne radiometric survey	Met	Metallurgical testing
Beep	Beep Mat survey	OD	Overburden drilling
Bulk	Bulk sampling	ODH	Overburden drill hole(s)
DD	Diamond drilling	PEM	Pulse electromagnetic survey
DDH	Diamond drill hole(s)	PGM	Platinum group metals
DGP	Down-hole geophysics	Pr	Prospecting
GC	Geochemical survey	RES	Resistivity survey
GEM	Ground electromagnetic survey	Samp	Sampling (other than bulk)
GL	Geological Survey	Seismic	Seismic survey
GM	Ground magnetic survey	SP	Self-potential survey
GRA	Ground radiometric survey	Str	Stripping
Grav	Gravity survey	Tr	Trenching
HLEM	Horizontal loop electromagnetic survey	UG	Underground exploration/development
HM	Heavy mineral sampling	VLEM	Vertical loop electromagnetic survey
IM	Industrial mineral testing and marketing	VLFEM	Very low frequency electromagnetic survey

No.	Company/Individual (Occurrence Name or Property)	Township/Area (Commodity)	Exploration Activity
1	1179406 Ontario Ltd.	Black River (Au)	AEM, AM
2	Alto Ventures Ltd.	Terrace Bay (Au)	DD, Str, Tr
3	Alto Ventures Ltd.	Burchell Lake (Au)	AEM, AM, Petrography, Samp
4	Anderson, C.	McTavish Township (Amethyst)	Str
5	Bak, D.	McTavish Township (Amethyst)	Str
6	Beaufield Consolidated Resources Inc.	Pic and Lecours townships (Au)	GC, DD
7	Benton Resources Corp.	Seeley Lake (Cu, Ni, PGM)	DD
8	Benton Resources Corp.	Saganaga Lake (Cu, Zn)	Str, Tr, Samp
9	Canadian Empire Exploration Corp.	Baker Township (Au)	Pr
10	Canadian Golden Dragon Resources Ltd.	Tilly Creek (Au, Cu, Mo)	AEM, AM, DD
11	Canadian Golden Dragon Resources Ltd.	Kashabowie and Haines townships (Cu, Zn, Ag)	GL
12	Canadian Golden Dragon Resources Ltd.	Crayfish Lake (Au, Cu, Zn)	DD, Samp
13	Ciccarelli, M.	MacGregor Township (Amethyst)	Manual-Mechanical
14	Dianor Resources Inc.	Killala Lake (Diamonds)	Pr, Samp
15	East West Resource Corporation	Seagull Lake (Cu, Ni, PGM)	DD, Samp
16	East West Resource Corporation	Hamlin Lake (Au, Cu, Mo)	AEM, AM, DD, Str, Samp
17	East West Resource Corporation	Deatys Creek (Au, Cu)	AEM, AM, DD, Str, Samp
18	East West Resource Corporation	Powell Lake (Au, Cu)	AEM, AM, DD, Str, Samp
19	East West Resource Corporation	Conacher Township (Au, Cu)	IP, Lc
20	East West Resource Corporation	Clay Lake (Au, Cu)	AEM, AM, DD, Str, Samp
21	East West Resource Corporation	Moss Township (Au)	AEM, AM, DD, Str, Samp
22	East West Resource Corporation	Burchell Lake (Au, Cu)	AEM, AM
23	East West Resource Corporation	Shear Occurrence (Au, Cu)	AEM, GEM, GM, Lc
24	East West Resource Corporation	Obadinaw River (Cu, Zn, Ag)	AEM, AM
25	El Nino Ventures Inc.	McTavish Township (Mo)	Pr, Samp
26	Fairservice, R.	Kitchen Lake (Cu, Ni, PGM)	Samp
27	Fenwick, K.	Shelby Lake (Cu, Ni, PGM)	AEM, AM, VLFEM, DD, Samp
28	Fenwick, K. and Bjorkman, K.	Hutchinson Township (Au)	Str, Samp
29	Freewest Resources Canada Inc.	Wye Lake (Cu, Zn, Ag)	DGP, GEM, GM, GL, VLFEM, Pr, DD, Samp
30	Friborg, G.	Onion Lake (Amethyst)	Manual-Mechanical
31	Gionet, G.	Cecil Township (Cu, Ni, PGM)	Beep, Str, Samp

No.	Company/Individual (Occurrence Name or Property)	Township/Area (Commodity)	Exploration Activity
32	Gionet, G.	Roberta and Herbert townships (Cu, Ni, PGM)	Beep, Str, Samp
33	Golden Meadow Explorations Inc.	Rous Lake and Lecours Township (Au)	AM, GL
34	Gravity West Mining Corp.	Black Sturgeon (U)	AEM, AM
35	Grieve, M.	Tartan Lake (Amethyst)	Manual-Mechanical
36	Hackl, J.	Lac des Mille Lacs (Au, Cu)	Pr, Samp
37	Hackl, J. and Hackl, J.	Haines Township (Cu, Ni, PGM)	Str, Samp
38	Henriksen, G.	Gertrude and Cecil townships (Cu, Ni, PGM)	Pr, Samp
39	Holbik, E.	Greenwater Lake (Au, Cu, Zn)	Beep, Str, Samp
40	Kennecott Canada Exploration Inc.	Gorham Township (Cu, Ni, PGM)	AEM, AM, DD
41	Kowluski, L.	McTavish Township (Amethyst)	Pr, Samp
42	Kukkee, K.	Laurie Township (Au)	Pr, Str, Samp
43	Kukkee, P.	Horne Township (Au)	Str, Samp
44	Kukkee, P.	Dawson Road Lots (Au)	Str, Samp
45	Lac des Iles Mines Ltd.	Shabotik River (Cu, Ni, PGM)	Pr, Samp
46	Lac des Iles Mines Ltd.	Haines and Begin townships (Cu, Ni, PGM)	DD, Samp
47	Lac des Iles Mines Ltd.	McGill Township (Cu, Ni, PGM)	AEM, AM
48	Maple Minerals Corp.	Burchell Lake (Au, Cu)	DD, Samp
49	Marathon PGM Corporation	Seeley Lake (Cu, Ni, PGM)	GM, IP, RES, DD
50	Mega Uranium	Silbey Basin (U)	Pr
51	MetalCORP Ltd.	Mussey Lake (Cu, Ni, PGM)	DD
52	Morehouse, W.	Weaver Township (Cu, Ni, PGM)	DD
53	Morehouse, W. and Richmond, W.	Tib Lake (Cu, Ni, PGM)	Pr, Samp
54	Murgor Resources Inc.	Clay Lake (Au)	AEM, AM
55	Navasota Resources Ltd.	Heron Bay (Au)	DD
56	North American Palladium Ltd.	Lac des Iles (Cu, Ni, PGM)	DD
57	North American Palladium Ltd.	Haines and Conacher townships (Cu, Ni, PGM)	DD
58	North American Palladium Ltd.	Manitouwadge (Cu, Ni, PGM)	AEM, AM
59	Noyes, M.	Gorham Township (Au)	Str, Samp
60	Pele Gold Corporation	Moss Township (Au)	DD, Samp
61	Phoenix Matachewan Mines Ltd.	Steel River (Cu, Zn, Ag)	GC, DD
62	Pitkanen, R. and Moffat, R.	Freeborn Township (Au)	Str, Samp
63	Platinum Group Metals Ltd. and East West Resource Corporation	Seagull Lake (Cu, Ni, PGM)	DD
64	Platinum Group Metals Ltd. and East West Resource Corporation	Rightangle Lake (Cu, Ni, PGM)	DD
65	Platinum Group Metals Ltd. and Fenwick, K.	Fluor Island (Cu, Ni, PGM)	GL, Grav
66	Rampart Ventures Ltd.	Black Sturgeon (U)	AEM, AM, DD
67	Richmond, W. and Morehouse, W.	Sharp Lake (Cu, Ni, PGM)	Pr, Samp
68	Ripple Lake Diamonds Inc.	Walsh Township (Diamonds)	Pr, Samp
69	RJK Exploration Ltd. and GLR Resources Inc.	Conmee Township (Au, Cu, Mo)	DD
70	RJK Exploration Ltd. and GLR Resources Inc.	Saganaga Lake (Au, Ag, Cu, Zn)	AEM, AM
71	RJK Exploration Ltd. and GLR Resources Inc.	Aldina Township (Cu, Zn, Ag)	DD
72	Saunders, D.	Norway Lake (Au, Cu, Zn)	IP
73	Tri-Gold Resources Corp.	Big Duck Lake (Au)	GM, IP
74	ValGold Resources Ltd.	Cunniah Lake (Au)	Str, Samp
75	ValGold Resources Ltd.	Conmee Township (Au)	DD
76	Wahl, R.	Pic Township (Diamonds)	Pr, Samp

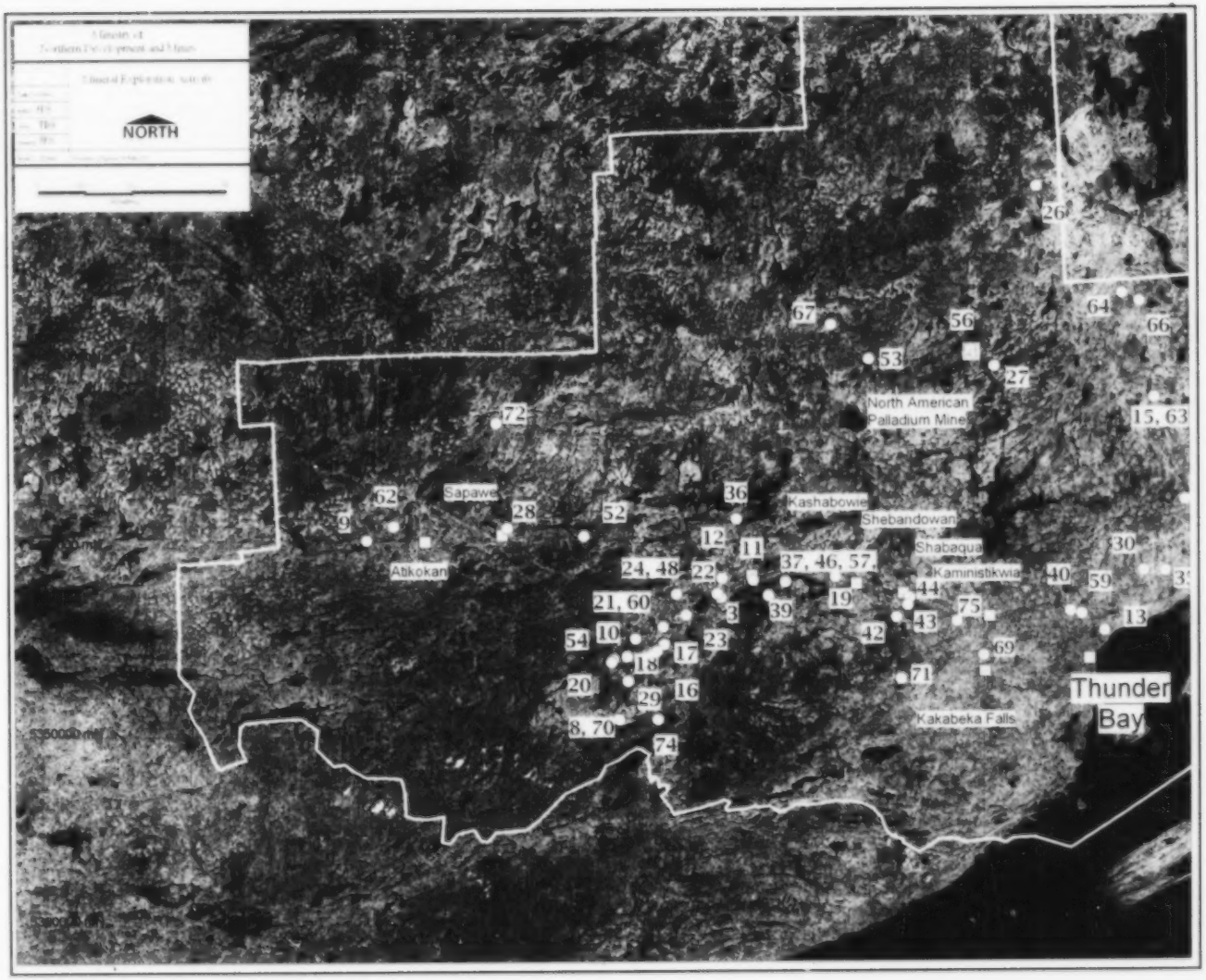

Figure 1. Thunder Bay South Resident Geologist's District (western portion), exploration activity 2005 (*modified from* NASA 2004).

Figure 2. Thunder Bay South Resident Geologist's District (eastern portion), exploration activity 2005 (*modified from* NASA 2004).

RESIDENT GEOLOGIST STAFF AND ACTIVITIES

The Thunder Bay South District is staffed by, J.F. Scott, District Geologist, M.A. Magee, District Support Geologist, D. Wyant, GIS/Data Specialist, and C. Komar, Administrative Assistant.

Bernie Schnieders passed away on July 10, 2005, at home. The exploration community, all his friends and acquaintances, as well as his co-workers will miss him.

With the untimely passing of Bernie Schnieders, the Thunder Bay South District was short staffed and field activities that were normally undertaken by staff geologists declined accordingly.

The Thunder Bay South District staff dealt with more than 4000 inquiries from the mining and mineral exploration sector, other government agencies and the general public. The satellite office in Marathon was staffed as required. Core storage facilities in Thunder Bay, Marathon and Conmee Township were made available for both exploration client and university client use.

Thunder Bay South District staff conducted 26 property visits in 2005 (Table 4). Field trips were conducted for industry and university groups, and the office resources were made available to facilitate an ILSG field trip to the Rossport Islands. Office staff attended and made presentations at the Institute on Lake Superior Geology (ILSG) conference in Nipigon, the Prospectors and Developers Conference in Toronto, the Cordilleran Roundup in Vancouver, and the Northwestern Ontario Mines and Minerals Symposium in Thunder Bay. Support and field assistance was given to the OGS and industry geologists where required.

Angelique Magee, District Support Geologist, has been seconded to the Thunder Bay South District for 6 months as Acting District Geologist. .

Table 4. Property visits conducted by the Thunder Bay South Resident Geologist's Office in 2005.

Number	Property or Occurrence with Commodity
1	Agate Point: Industrial Minerals
2	Amethyst Mine Panorama: Amethyst
3	Blue Points Amethyst Mine: Amethyst
4	Buller's Point: School Field Trip
5	E. Holbik Greenwater Lake–Loch Erne: Au, Cu, Zn
6	East West Resource Corp. Hamlin Lake: Cu, Mo, Au
7	Furcate Lake: Cu, Mo
8	Freewest Resources Canada Inc. Wye Lake: Cu, Zn, Ag
9	Freewest Resources Canada Inc. Sungold occurrence: Au, Ag
10	Grotto Point: School Field Trip
11	J. Hackl Bolton Bay East Zone: Au, Ag, Cu
12	J. Hackl Bolton Bay West Zone: Au, Ag, Cu
13	Lac des Mille Lacs (Clear Lake): Au
14	Lac des Mille Lacs (Baril Bay): Au
15	MacGregor Township: Amethyst
16	M. Noyes Gorham Township: Au
17	Ontario Gem Amethyst Mine: Amethyst
18	Nelson Lake Quartz Veins: Au
19	R. Pitkanen Gorham Township: Au
20	Rampart Ventures Ltd. Black Sturgeon Lake: U

PROPERTY EXAMINATIONS

E. Holbik Greenwater Lake–Loch Erne Property

The Holbik claim block consists of 4 contiguous mining claims totalling 21 claim units with an approximate area of 336 ha. In addition, E. Holbik also has one nearby claim on Greenwater Lake. The Holbik claims are situated 88 km west of Thunder Bay, Ontario, between Loch Erne and Greenwater Lake, and approximately 10 km west of the Inco Shebandowan Mine (past producer). Access is through the Inco Shebandowan Mine site. Arrangements have to be made with Inco for permission to cross the mine property. The property is accessed via logging roads and skidder trails. Current access is by all-terrain vehicle (ATV) from the end of the drivable portion of the road, a distance of about 4 km. The property can also be accessed by boat from either Greenwater Lake or Middle Shebandowan Lake with a portage to Loch Erne.

The Holbik property has been mapped geologically by Hodgkinson (1968) and by Osmani (1997) as part of a larger regional mapping project for the OGS. In addition, almost the entire Shebandowan belt was flown with an Aerodat system (magnetometer plus EM) as part of an OGS program in 1991.

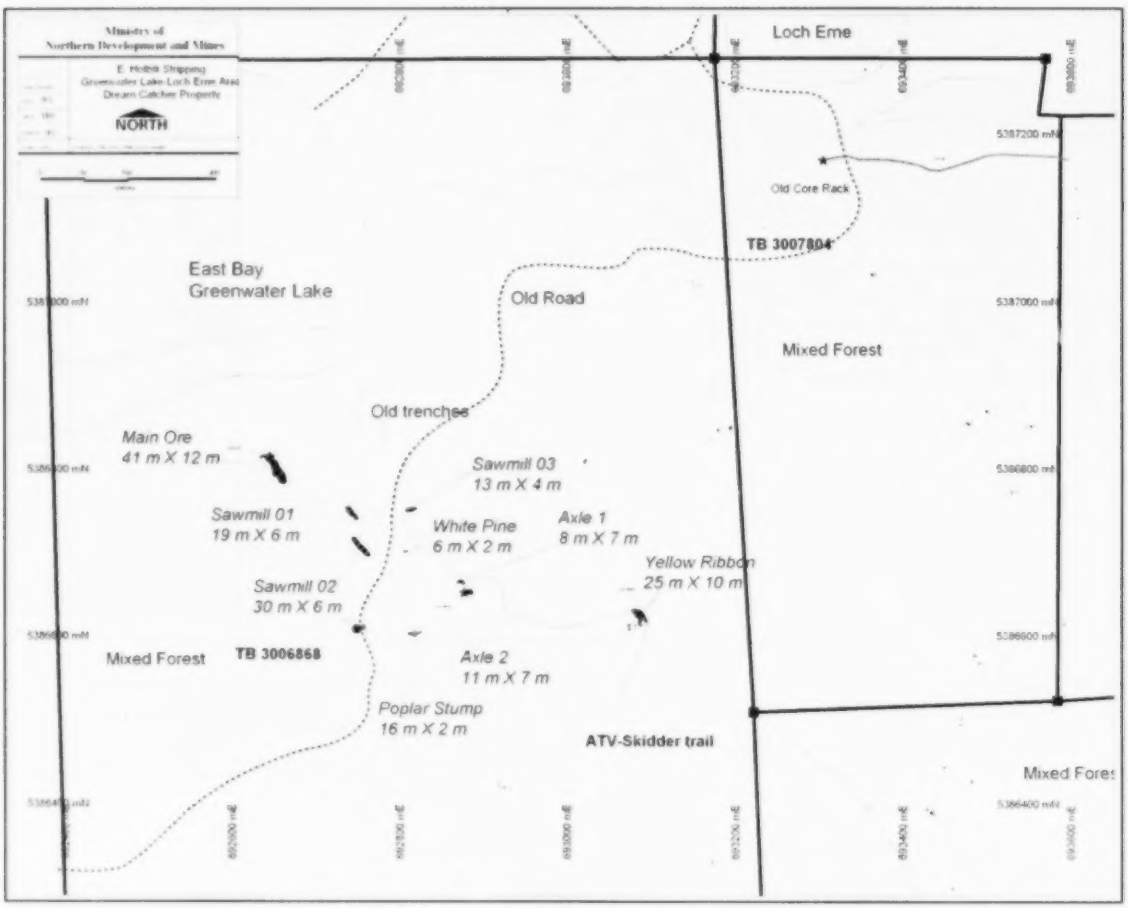

Figure 3. Location of stripped areas at the Holbik occurrence.

Rock assemblages are typical of the Canadian Precambrian Shield. These include older (2733 Ma) volcanic rocks and intrusive complexes that, in turn, have been intruded or overlain by younger Archean assemblages (2700 Ma). In general terms, the property is underlain by intermediate to mafic volcanic rocks and associated metasedimentary sequences. Pillowed lavas generally indicate a north younging direction; metasedimentary rocks include wacke, argillite, conglomerate, arkose and banded iron formation. Gabbro and peridotite sills (and flows) either intrude the volcanic sequence or are a part of the volcanic pile itself.

Historical trenching on the property concentrated on exposing large quartz vein systems, sometimes in excess of 10 m wide, near the contact between the Loch Erne syenite stock and the host volcanic rocks. Chalcopyrite, pyrite, galena, and perhaps some tellurides are associated with this kind of veining. Other older trenches have exposed peridotite sills near the low land between Greenwater Lake and Loch Erne.

Current prospecting on the property by E. Holbik is limited generally to hand stripping and sampling. With the use of a Beep Mat (www.gddinstrumentation.com/BeepMat1.htm), numerous near-surface conductive zones were outlined and flagged for further investigation. Some of these Beep Mat anomalies were stripped by hand and sampled. The larger anomalies were stripped with the aid of a skidder and prepared for sampling by washing. Sampling and prospecting has defined areas of elevated gold mineralization in the 300 to 900 ppb range, with 3 areas over the 1 g/t Au range. The highest assay result was 8.8 g/t Au from a grab sample (E. Holbik, personal communication, 2005; assay results for sample EJH-05-012, assayed by Accurassay Laboratories, Thunder Bay).

All of the Beep Mat anomalies, when stripped, revealed massive to disseminated sulphide mineralization in felsic to mafic volcanic rocks. The sulphides were mainly pyrite with minor chalcopyrite. In cases where an actual rock sample could not be obtained, a plugger was used to drill a series of 30 cm deep holes, and the drill cuttings from each hole were collected for assay. In many cases, the presence of sulphides could be determined by the black dust from the drilling.

All the Beep Mat anomalies were documented with a global positioning system (GPS) and these were plotted on a map. The larger stripped zones were documented using a mapping-grade GPS and these were also plotted on the map. These stripped zones are shown in Figure 3.

The gold occurrences found on the Holbik property are newly discovered. This property offers a good opportunity for a company looking for a property in an established mining area to enter at the grass-root level. A preliminary assessment would be a simple power stripping, washing and sampling program to assess the value of the gold occurrences, coupled with detailed geological mapping to document the geology. It also must be noted that the government-sponsored airborne Aerodat survey was flown on a north-to-south line pattern. On this property, the general strike of the rocks as indicated at the molybdenum occurrence is northwesterly. Because of this, most of the Beep Mat conductors were not picked up in the airborne survey. Geological mapping would fix the geological structure and would provide a basis for a follow-up airborne survey at a different orientation to maximize the coupling of the conductive zones.

Hackl Bolton Bay, Lac des Mille Lacs Property

LOCATION AND ACCESS

Joe and Joey Hackl hold a group of 10 mining claims along the north shore of Bolton Bay, Lac des Mille Lacs, to cover the Bolton Bay gold occurrences. The claim numbers are 4204887 to 420496 inclusive. Access to the claims is by boat across Lac des Mille Lacs. Numerous launch sites are available on the lake, but the 2 closest are at Pine Point Resort and Maki Bay Resort.

PREVIOUS WORK

Gold mineralization at Bolton Bay has been known since the 1930s and the occurrences have been recorded on Geological Survey of Canada (GSC) Map 432A (Tanton 1938). Several mineral exploration companies and individuals have prospected and explored the area since then with most of the work done between 1965 and the present. The reader is referred to the Thunder Bay Resident Geologist assessment files for details. Work by the Canadian Nickel Company Limited in 1986 seems to be the most comprehensive and some of the descriptions are taken from their report.

Kaye (1967) mapped the Lac des Mille Lacs area for the Ontario Department of Mines., Office staff conducted a property visit with Joe and Joey Hackl, Denver Stone, and Eric Annala on July 6–7, 2005.

CURRENT WORK

Prospecting and resampling is under way with power stripping planned for a later date.

GEOLOGY

The property is underlain by massive to pillowed andesitic flows, some interbedded basalt, metagabbro, with minor rhyolite and feldspar porphyries. The Quetico fault marks a fault boundary between the volcanic rocks to the north of Bolton Bay and the metasedimentary rocks of the Quetico Subprovince to the south. Figure 4 illustrates the Quetico fault trace along the south shore of Bolton Bay. Rocks proximal to the Quetico fault have been mylonitized. Quetico Subprovince rocks consist of biotite-quartz schists, granitic stocks and migmatites.

Gold mineralization is related to a shear zone that strikes 073° and forms a splay off of the Quetico fault. The mineralization is confined to lattice quartz stock systems where the quartz flooding has filled in tension gashes within the shear zone. This is illustrated in Figure 5. Carbonate alteration, pyrite, chalcopyrite, with suspected tellurides, arsenopyrite, galena and gold define the mineralization. To date, 2 mineralized zones have been discovered. The East zone is located at 684310E, 5407380N (UTM Zone 15N), the West zone is located at 683620E, 5407140N (UTM Zone 15N), and are approximately 730 m apart.

In 1986, Canadian Nickel Company resampled the old trenches in the East and West zones and a good trench map is available in the assessment files. The best East zone assay result was 11.4 ppm Au and 91.5 ppm Ag across 70 cm. The best assay from the West zone was a 10 cm chip sample that assayed 116 ppm Au and 567 ppm Ag.

A 2 m chip sample collected by office staff across the shear structure at the East zone yielded 0.06 ounce per ton gold with a trace of copper; a grab sample from the high-grade area in the West zone assayed 2.07 ounce per ton gold.

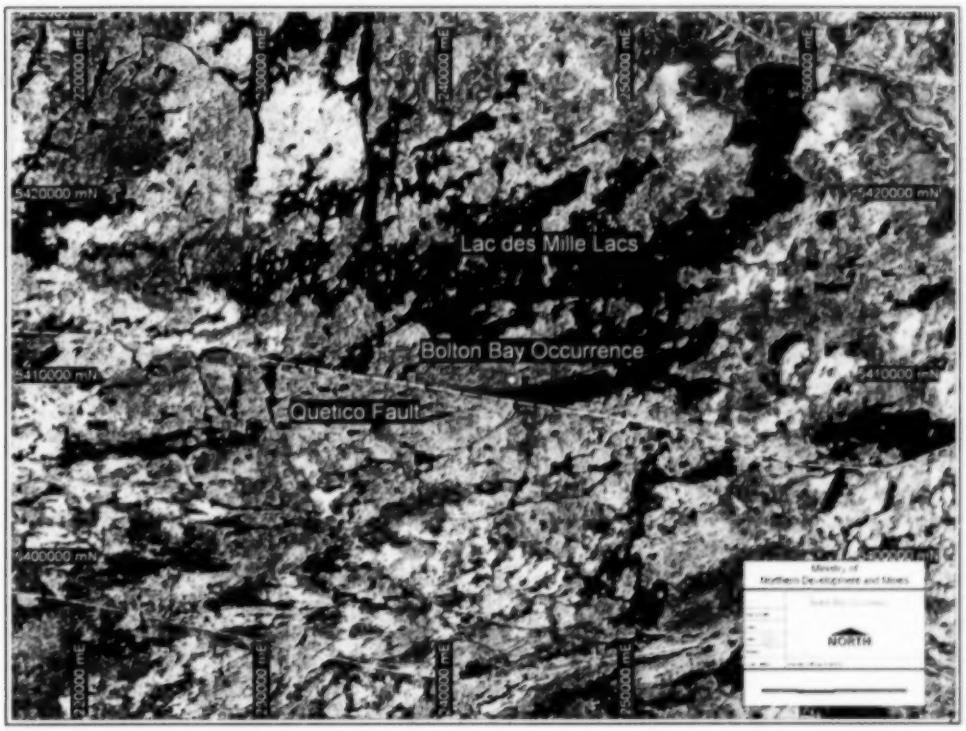

Figure 4. Location map for the Bolton Bay occurrence (*modified from* NASA 2004).

Figure 5. Tension gash veins, Hackl property, Bolton Bay.

Figure 4. Location map for the Bolton Bay occurrence (*modified from* NASA 2004).

Figure 5. Tension gash veins, Hackl property, Bolton Bay.

RECOMMENDATIONS FOR EXPLORATION

The Thunder Bay South District is actively being explored for a variety of deposit types that include copper-zinc VMS, copper-nickel-PGM, gold, unconformity uranium, Olympic Dam (IOCG), copper-molybdenum, diamonds, amethyst, stone and peat. With the increase in the demand for iron from Asia, the iron deposits in the Thunder Bay South District should be re-evaluated.

In the last 2 decades, the OGS and the GSC have released many reports dealing with lake bottom sediment and lake water geochemistry, till geochemistry, kimberlite indicator mineral data, geophysics, and geology. These reports should be consulted and mineral trends discerned from the data. Much of these data are available in digital form and can be displayed and analyzed with suitable software on a computer. With hard-copy paper maps, a visual analysis is also possible, but would not be as precise as computer analysis utilizing geographic information system (GIS) software.

For the prospector, for instance, if the data indicate overlapping copper, zinc, and lead values over a definable area, then that area should be targeted for VMS exploration if the geology is correct. If the data suggest a copper-nickel-cobalt association in another area, then exploration should focus on looking for copper-nickel-PGM deposits if the geology is correct. Likewise, if the data indicate an overlap of copper, molybdenum and gold values, then a porphyry system should be suspected.

With the use of geophysics, the prospective area can further be defined. Thus, if the prospector has a good correlation of regional geochemistry data for VMS-style deposits and the geophysical data indicate a magnetic high coupled with a good electromagnetic anomaly, then that area should be targeted for VMS exploration. This also would apply to other deposit types such as magmatic copper-nickel-PGM and others.

A cursory examination of the 1:2 000 000 scale regional geochemical data put out in 1979–1980 (Coker 1981), as well as the subsequent detailed surveys that resulted from the initial helicopter surveys, does reveal excellent correlation of the geochemistry with found deposits or occurrences. The examples cited in Table 5 are for illustrative purposes and, even in this short list, there are 4 areas where the anomalies are unexplained and suggest that further research is required.

Table 5. Linking geochemical anomalies and their probable origins.

No.	Area	Overlapping Metals	NAD 27 UTM Zone 16		Feature
			Easting (m)	Northing (m)	
1	W. Shebandowan	Cu-Zn	213100	5368600	Wye Lake occurrence
2	W. Shebandowan	Cu-Mo-Au	220900	5376400	Hamlin Lake
3	Northern Light Lake	Cu-Ni-Co	227500	5355000	Unknown
4	Saganaga Lake	Co-Ni	203900	5348000	Unknown–ultramafic rocks
5	Black Sturgeon Lake	Cu-Ni	358500	5433200	Leckie Lake–Seagull Lake
6	Black Sturgeon Lake	U	369600	5466500	Black Sturgeon Lake–Split Rapids Dam occurrence
7	Black Sturgeon Lake	Au	342800	5450000	Elevated Au along iron formation trend
8	Atikokan–Sapawe	As	180600	5412600	Atikokan iron formation gold associated with arsenopyrite
9	Marathon	Cu-Zn	555600	5409900	Pic River felsic rock-sulphide occurrences
10	Marathon	Cu-Ni	553000	5406800	Marathon PGM
11	Manitouwadge	Cu-Zn	591400	5447900	Geco–Willroy–Willęcho
12	Schreiber	Cu-Zn	472600	5425700	Zenmac–Winston Lake
13	Schreiber	Mo	468800	5412900	Cu-Mo associated faults in granite
14	Dorion	Pb-Zn	379500	5413500	Proterozoic Pb-Zn
15	White River	U	636000	5383100	Unknown U-granite

One such area lies just east of the Port Coldwell alkalic complex on the Pic River and merits attention, as it is underlain by felsic metavolcanic rocks and has a copper-zinc geochemical response and, as of February 2, 2006, was unstaked. The area was mapped by Thompson (1931) and Milne (1967), as well as reported in Schnieders and Smyk (1994). Schnieders and Smyk (1994) described the geology on a traverse along the power line from Page Lake southwesterly to the Pic River and, from east to west, encountered magnesium tholeiitic basalts, iron formation, turbidites, and felsic volcanic rocks including rhyolite, rhyolite breccias and debris flows. A quick review of Kerr Addison Mines Ltd.'s 1971 drill logs in the Thunder Bay South assessment files indicates that, in Hole KP-71-4, there was a 20-foot intersection from 15 feet to 35 feet that averaged 1.15% Zn. Also, in Hole KP-71-6, there was a 0.5-foot intersection at 27 feet that assayed 1.84% Zn and a 2.5-foot intersection from 35 feet to 37.5 feet that assayed 1.76% Zn. This area should be explored again in light of the high mineral potential as well as the evolving VMS model, which was at that time (1971) in its infancy. The current knowledge base with respect to VMS deposits would certainly aid in the proper exploration for copper-zinc massive sulphides in this area.

Even though many of the areas may already be staked that should not deter a mining company from approaching the owner of the claims to offer an option or joint venture program. Many times, the claim maps may indicate that the area has a leased or patent status, but closer inspection might reveal that only the surface rights are leased or patented. In this case, the mineral rights are available for staking.

One such area is situated east of Highway 527 (Spruce River Road) and north of Highway 11/17 just north of where a major power line crosses Highway 11/17. Mapping by Scott (1990) indicates the presence of felsic volcanic rocks, iron formation, and metasedimentary rocks in a complexly faulted environment. An assessment file search revealed a local airborne electromagnetic survey that has delineated several unexplained electromagnetic conductors. The area has excellent potential for both VMS-type deposits as well as gold. A cursory examination of the claim map reveals that while the area is patented for surface rights, virtually all the mineral rights are available for staking.

Geophysics, and to a lesser degree geochemistry, have had limited success in detecting gold deposits. In the area between Atikokan and Mine Centre, gold is associated with large shear structures and porphyry systems. Examples of these would be the Hammond Reef and Sawbill occurrences. The gold might be disseminated in a large tonnage–low grade deposit or the gold might be concentrated in high-grade quartz veins, such as the Fern Elizabeth Mine. While the geochemistry and geophysical tools help in the discovery, structure must not be overlooked. Work by Stone, Kamineni and Jackson (1992) in the Atikokan area has delineated many of these large structures.

Many times, a magnetometer survey can reveal structure that might be missed during regional mapping. One such area is located in the Obonga Lake metavolcanic belt where the recent Operation Treasure Hunt (OTH) magnetometer-electromagnetic survey has revealed a possible multi-pulsed layered intrusion. While the layers appear stacked, there is a degree of folding present as evidenced by the hook shapes in the magnetic survey. The area was mapped in the mid-1960s and was interpreted to be underlain by peridotites, serpentinites and gabbro (Thurston 1968; Kustra 1967). Kustra (1967) further describes the unit as a "dioritic rock, partly serpentinized" that contains "phases of gabbro, peridotite, pyroxenite and dunite". Kustra (1967) also reports that the serpentinzed portions of this unit are magnetic and nickeliferous. No assays were given. Figure 6 depicts this feature. The area in question is situated between Awkward Lake and Survey Lake. Figure 7 depicts the geology at the same scale. If this is a layered complex, then it should be explored for copper-nickel-PGM.

With the increased demand from Asia for iron resources, many of the iron deposits in the Thunder Bay South District should be re-evaluated. Three of the more prospective ones are listed in Table 7. These are the Matawin Iron Range deposit, the Kaministikwia Prospect and the Mt. Edna prospect. Numerous other prospects exist in the Conmee–Horne–Aldina–Sackville area west of Kakabeka Falls.

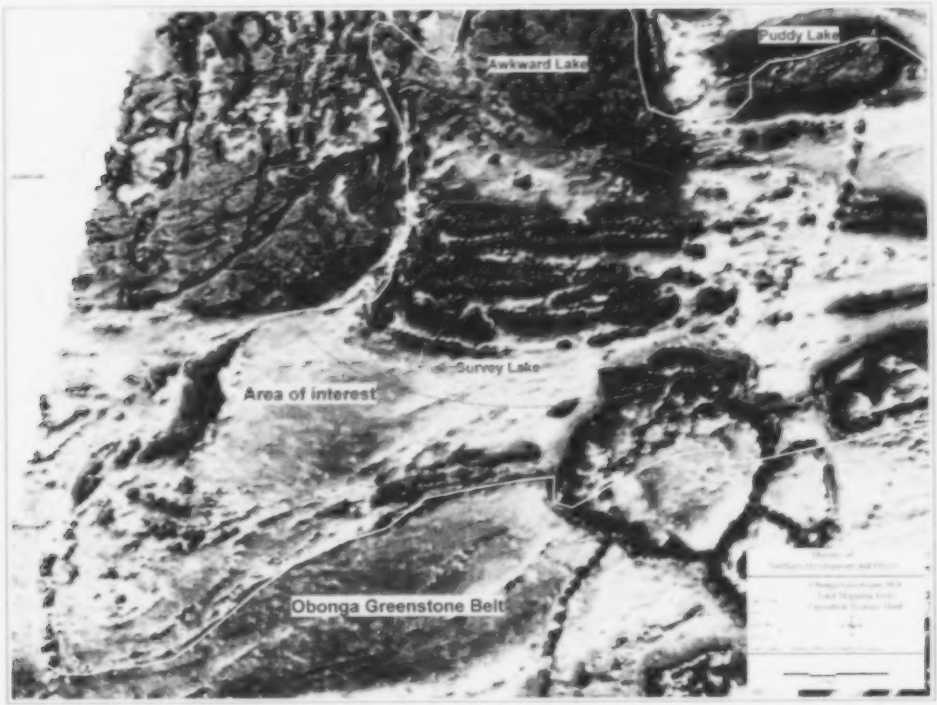

Figure 6. Total magnetic field Obonga Lake greenstone belt (*modified from* Ontario Geological Survey 2003).

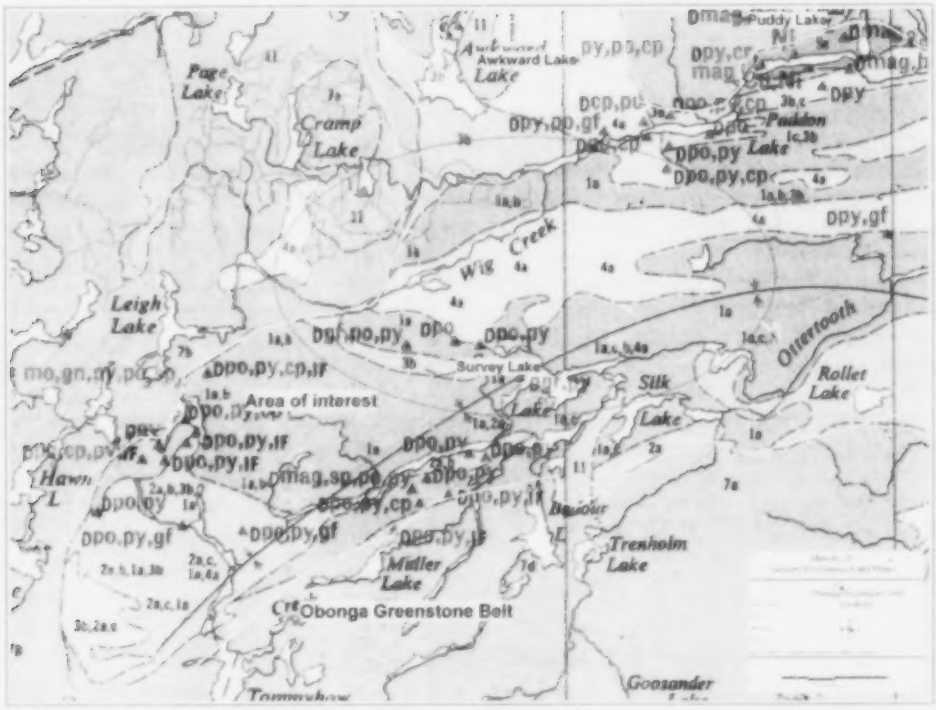

Figure 7. Geology of the Obonga Lake greenstone belt (*modified from* Breaks 1981).

GEOLOGICAL INTEREST

For some time now, a large circular structure in the Shebandowan area has tweaked interest as to its origin. While obvious at Landsat scales, the structure is not apparent at normal geological map scales. With increased attention in recent years to meteors and meteor impact sites, it became apparent that this feature shares many geomorphological characteristics with known impact sites. A preliminary examination, using digital mapping procedures, reveals that this feature has the following characteristics:

1. It is circular in nature with a diameter of approximately 38 km centred at 225800E, 5377200N (NAD27, Zone 16). As shown in Figure 8, drainage systems appear to be captured by the structure.
2. A topographic contour profile in a northeast to southwest direction indicates a typical cross section often associated with impact sites. From edge to centre, there is a circular rim, a defined trough or moat, and an uplifted central area.
3. The central uplifted area is located just west of Kekekaub Lake.

In order to ascertain whether this feature is an impact site, further work to determine if the geological indicators for an impact site are present would have to be undertaken. This might include the determination of the origin of any breccias, the determination whether any suspect melt rock is actually melt rock or a product of normal volcanism, the presence of shock metamorphic features such as planar shock cleavage in quartz, shatter cones, pseudotachylite veins, etc. Detailed geochemistry of the various suspected melt rocks should be undertaken to determine if extraterrestrial geochemical signatures are present.

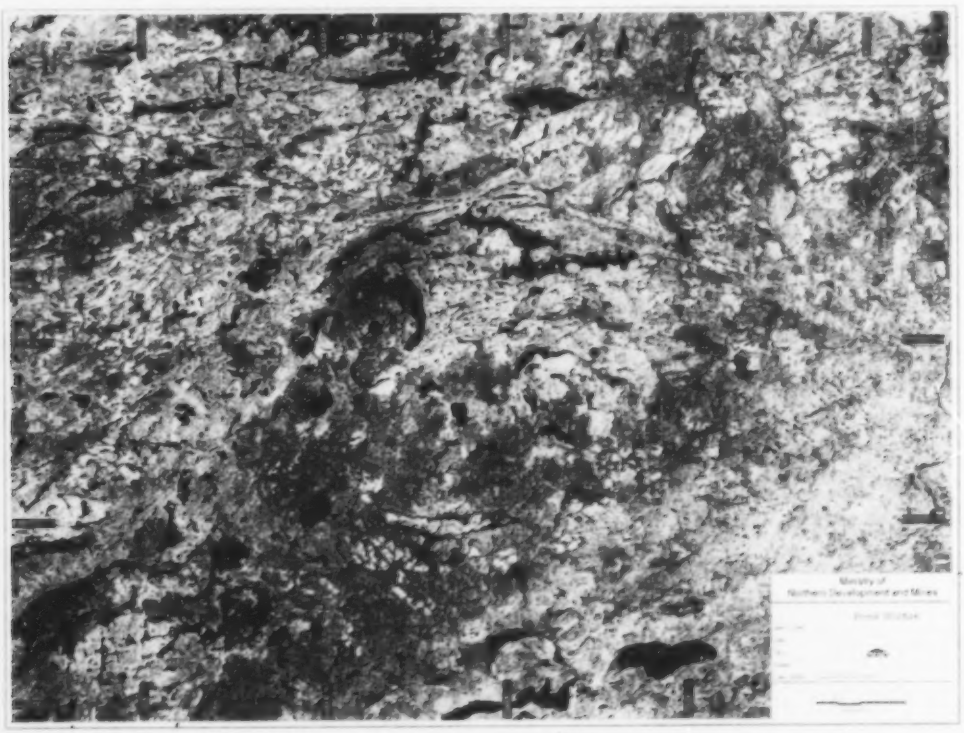

Figure 8. The Boreal structure in the Shebandowan area (*modified from* NASA 2004).

OGS ACTIVITIES AND RESEARCH BY OTHERS

1. Denver Stone, Precambrian Geoscience Section, OGS, will be completing detailed maps (1:7500) of the Crooked Pine and western Steep Rock Lake areas, which are planned for publication in the summer of 2006. The mapping is being completed concurrent with soil geochemistry studies. The Crooked Pine Lake area includes the boundary between the Marmion terrane of the Wabigoon Subprovince to the north and the Quetico Subprovince to the south. The Steep Rock Lake area is found within the western part of the Steep Rock Lake greenstone belt (Stone 2005). Regional-scale mapping near Atikokan continues with the goal of updating and producing new 1:50 000 scale maps (e.g., Stone and Hallé 2005).

2. The Lake Nipigon Region Geoscience Initiative (LNRGI) is a two-year $3.5 million geoscience project managed by the Ontario Prospectors Association. The project area is approximately 22 000 km^2 covering the region around western Lake Nipigon. Projects associated with the Lake Nipigon Region Geoscience Initiative (LNRGI) were initiated in 2003 and continued in 2004 (Rayner, Lane and Easton 2003; Rayner 2004). They include

   - Geological mapping in the southern (Tom Hart, Precambrian Geoscience Section, OGS) and west-central (Carole Anne MacDonald, Precambrian Geoscience Section, OGS) areas of the Nipigon Embayment, respectively ((Hart and Whaley 2004; Hart 2005a, 2005b; Hart, Whaley and Pace 2005; Hart and Tolson 2005) and (MacDonald 2004; MacDonald, Tremblay and Easton 2004, 2005; MacDonald and Tremblay 2005; MacDonald, Tremblay and ter Meer 2005a, 2005b; MacDonald et al. 2005), respectively)
   - A petrology project, initiated in 2004, to complement OGS bedrock mapping (Schandl 2004, 2005)
   - Aeromagnetic and gamma-ray spectrometry survey over a large area west of Lake Nipigon, completed in 2003
   - Ground-based gravity survey conducted west and south of Lake Nipigon, completed and released in 2004
   - Audio magnetotelluric surveys by J. Craven, GSC, in 2004 to provide deep crustal profiles across the western edge of the Nipigon Embayment
   - Paleomagnetic study of mafic dike swarms by R. Ernst, GSC, to provide insight into magmatism in the Nipigon Embayment
   - Geochronologic sampling and analysis of key stratigraphic units by Larry Heaman (University of Alberta)
   - Surficial geochemical and Quaternary case studies of 5 key areas as follow-up to nickel and PGE anomalies generated by earlier OTH lake sediment surveys (Barnett and Dyer 2005; Dyer 2004; Barnett 2004; Dyer and Barnett 2003, 2005)
   - Physical property borehole logging (DGI Geoscience Inc. 2005)

   Lakehead University Research

   - Sulphide saturation mechanisms in diabasic and gabbroic intrusions in the Nipigon Embayment (Kissin 2003)
   - Stratigraphy of the Sibley Group and its relationship to sedimentary units of the basal Osler Group (Metsaranta, Fralick and Rogala 2003; Metsaranta and Fralick 2004; Rogala, Fralick and Metsaranta 2005)
   - Geochemistry and mineralogy of Nipigon diabase sills (Richardson, Heggie and Hollings 2003; Richardson and Hollings 2004; Richardson, Hollings and Franklin 2005)
   - Petrology and mineral chemistry of the Seagull intrusion (Heggie and Hollings 2003)
   - Geographical information system (GIS) compilation of existing geological and geophysical data, including proprietary, in-kind contributions from industry partners
   - Geophysical modeling over selected areas of interest
   - Diamond-drill core recovery and storage in MNDM remote drill core storage facility

   The projects of the initiative have been completed and the final data and reports were scheduled to be released throughout 2005 and early 2006.

3. Under the supervision of Keiko Hattori, PhD candidate John Hinchey (University of Ottawa) is documenting the geology of the palladium mineralization in the South Roby and Twilight zones to establish the paragenesis, and to examine the genesis of the mineralization in the main zones at the Lac des Iles Mine. The focal question remains the cause of high palladium tenor of the ore, relative to other platinum group metals, and the possible role and scale of hydrothermal activity in the concentration of palladium. The major goal of the thesis is to answer the ongoing debate of the origin of the deposit, whether it is primarily magmatic or hydrothermal.

4. Under the supervision of Keiko Hattori, MSc candidate Mike Fell (University of Ottawa) is currently studying the petrology and mineralization in the Baker zone at the Lac des Iles Mine. The major goal of the thesis is to discern the intrusive relationships and timing of events in this area. Comparisons may be made to the nearby Roby zone.

5. P. Hollings of Lakehead University continued research in the Fort Hope greenstone belt with Greg Stott and Midcontinent Rift-related research with Mark Smyk.

6. Dr. Phil Fralick of Lakehead University studied Precambrian sedimentary sequences (English River–Wabigoon–Quetico–Wawa subprovinces, banded iron formation, Sibley Group).

7. M.L. Hill of Lakehead University studied the structural geology of the Paleoproterozoic Gunflint Formation, Animikie Group, as it relates to the Penokean orogen.

8. Faculty and students at Lakehead University, Thunder Bay, have recently been, or currently are, involved in a number of research projects in the Thunder Bay South District:

   BSc (Hon) Theses

   - Rajnovich, L. Structure and mineralization west of Burchell Lake; completed 2005
   - Shute, A. The petrofabrics and emplacement of Ash Bay Dome, Rainy Lake; completed 2005
   - Lane, C. The geochemistry and petrology of the Rabbit Islands Breccia, N. Central Lake Nipigon; completed 2005

   MSc Theses

   - Almquist, B. Rock magnetism and archeomagnetism of late glacial sediments in northern Ontario
   - Heggie, G. Whole rock geochemistry, mineral chemistry, petrology and Pt, Pd mineralization of the Seagull Intrusion, northwestern Ontario
   - Johnson, J. Mineralization and tectonic setting of the Norton Lake Region, Uchi Subprovince; completed 2005
   - Laarman, J. PGE mineralization and geochemistry of the Kitto intrusion, NW Ontario
   - Magee, M.A. Geology and geochemistry of the Mesoproterozoic Pillar Lake Volcanic Group, Armstrong, Ontario
   - Marik, M. Sandstone architecture of the Paleoproterozoic Rove and Virginia formations, western Lake Superior region
   - Metsaranta, R. Paleohydrology of the Mesoproterozoic Sibley Group
   - Patrick, M. Geology and geochemistry of the Musselwhite gold mine
   - Richardson, A. Geochemistry and petrogenesis of the Nipigon sills
   - Shute, A. Petrology, volcanic facies and mineralization of the Hamlin Lake VMS system

A complete listing of publications received in the Thunder Bay South District office in 2005 is included in Table 6. Properties not currently being mined in the district are listed in Table 7.

Table 6. Publications received by the Thunder Bay South Resident Geologist's Office in 2005.

Title	Author(s)	Type and Year of Publication
Precambrian geology, Bedivere Lake area	D. Stone	Ontario Geological Survey, Preliminary Map P.3523, scale 1:50 000 (2005)
Precambrian geology, Savanne area	D. Stone	Ontario Geological Survey, Preliminary Map P.3524, scale 1:50 000 (2005)
Report of Activities 2004, Resident Geologist Program, Thunder Bay South Regional Resident Geologist Report: Thunder Bay South District	B.R. Schnieders, J.F. Scott, M.A. Magee, T.L. Muir and C. Komar	Ontario Geological Survey, Open File Report 6148, 46p. (2005)
Precambrian geology of the west-central map area, Nipigon Embayment, northwestern Ontario, Lake Nipigon Region Geoscience Initiative	C.A. MacDonald, E. Tremblay and R.M. Easton	Ontario Geological Survey, Open File Report 6164, Miscellaneous Release—Data 146 (2005)
Precambrian geology of the Black Sturgeon River and Seagull Lake area, Nipigon Embayment, northwestern Ontario	T.R. Hart	Ontario Geological Survey, Open File Report 6165, Miscellaneous Release—Data 147 (2005)
Surficial geochemistry case studies project digital data set, Lake Nipigon Region, northwestern Ontario	R.D. Dyer and P.J. Barnett	Ontario Geological Survey, Miscellaneous Release—Data 154 (2005)
Petrographic data from the west-central Nipigon Embayment, Lake Nipigon Region Geoscience Initiative	E.S. Schandl	Ontario Geological Survey, Miscellaneous Release—Data 156 (2005)
PGE surficial geochemistry case studies project: Lake Nipigon Region Geoscience Initiative	P.J. Barnett and R.D. Dyer	Ontario Geological Survey, Open File Report 6167, 144p. (2005) Miscellaneous Release—Data (MRD) 154
Paleomagnetism, geochronology and geochemistry of several Proterozoic mafic dike swarms in northwestern Ontario	H.C. Halls, G.M. Stott and D.W. Davis	Ontario Geological Survey, Open File Report 6171, 59p. (2005)
Geochemical detection of disseminated palladium mineralization in Ontario	University of Ottawa	Ontario Geological Survey, Miscellaneous Release—Data 170 (2005)
Stratigraphy and sedimentology of the Mesoproterozic Sibley Group and related igneous intrusions, northwestern Ontario: Lake Nipigon Region Geoscience Initiative	B. Rogala, P.W. Fralick and R. Metsaranta	Ontario Geological Survey, Open File Report 6174, 128p. (2005) Miscellaneous Release—Data (MRD) 190 (2006)
Geochemistry and radiogenic isotope characteristics of the sills of the Nipigon Embayment: Lake Nipigon Region Geoscience Initiative	A.J. Richardson, P. Hollings and J.M. Franklin	Ontario Geological Survey, Open File Report 6175, 88p. (2005) Miscellaneous Release—Data (MRD) 190 (2006)
Precambrian geology, Bonheur area	D. Stone and J. Hallé	Ontario Geological Survey, Preliminary Map P.3401—Revised, scale 1:50 000 (2005)
Detectability of mineral deposits with potential field methods	Mira Geoscience Limited	Ontario Geological Survey, Miscellaneous Release—Data 177 (2005)
Detectability of mineral deposits with electrical resistivity and induced polarization methods	Mira Geoscience Limited	Ontario Geological Survey, Miscellaneous Release—Data 181 (2005)
Assessment of using 3D large-scale visualization and data integration for the Lake Nipigon Region Geoscience Initiative	Mining Innovation, Rehabilitation and Applied Research Corporation (MIRARCO)	Ontario Geological Survey, Miscellaneous Release—Data 184 (2005)

Title	Author(s)	Type and Year of Publication
GIS compilation of geology and tectonostratigraphic assemblages, Wabigoon–Winnipeg River–Marmion Transect, Western Superior Province, Ontario	D.R. Lemkow, M. Sanborn-Barrie, G.M. Stott, J.A. Percival, D. Stone, K.Y. Tomlinson, T. Skulski, V. McNicoll, D.W. Davis, J.B. Whalen and P. Hollings	Ontario Geological Survey, Miscellaneous Release—Data 187/ Geological Survey of Canada, Open File 4971 (2005)
Logistics and interpretative report, physical property borehole logging: Lake Nipigon Region Geoscience Initiative	DGI Geoscience Inc.	Ontario Geological Survey, Miscellaneous Release—Data 189 (2005)

Table 7. Mineral deposits not being mined in the Thunder Bay South Resident Geologist's District in 2005.

Abbreviations

AF	Assessment Files
CMH	*Canadian Mines Handbook*
GR	Geological Report
MDC	Mineral Deposit Circular
MDIR	Mineral Deposit Inventory record
MLS	Mining Lands, Sudbury
MR	Mining Recorder
NM	*The Northern Miner*
OFR	Open File Report
PC	Personal Communication

Deposit Name and NTS	Commodity	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
Anderson Lake 52A/10NE	Mo	1 346 000 T (grade not stated)	K. Fenwick optioned to El Nino Ventures Inc. (press release, February 3, 2005)	W.N. Ingham (16/06/1959) in Prospectus, Lindsay Explorations Ltd. (19/06/1959)	Inactive
Ardeen Mine 52B/10SE,SW	Au	90 650 T @ 15.3 g/T Au (uncut) [84 904 T @ 11.6 g/T Au, assays cut to 2 oz Au/t]. inferred resource of 1 082 939 T @ 14.4 g/T Au (uncut) [991 739 T @ 11.2 g/T Au, assays cut to 2 oz Au/t]	Pele Mountain Resources Inc. (CMH 2002–2003, p 335)	*The Ontario Prospector*, v.1, no 3, p 35 (1998); CMH 2002–2003, p 335	Over $2 million spent in exploration since acquisition in 1996; diamond drilling in 2003
Atikokan Iron Mine 52B/14	Fe, Cu	12 000 000 T @ 35% Fe, 0.040% Cu	K. Bjorkman (Resident Geologist's Files)	NM (26/10/1972)	Inactive
Aumacho (Brink) 42E/05SW	Li	759 475 T @ 1.65% Li_2O, plus 96 000 T @ 1.5% Li_2O	A. Hayes (Resident Geologist's Files)	GR 31, p 64	Active; VLF-EM survey conducted in 1995
Coco–Estelle 42E/03SW	Au	53 700 t @ 10.7 g/t	J. Bond et al. (Resident Geologist's Files)	AF	Optioned to Tri-Alpha Investments Ltd. in 2003
Coldstream 52B/10SE	Au	7.6 Mt @ 2 g/t Au	Alto Ventures Ltd. (News Release, October 1, 2002)	Alto Ventures Ltd. (News Release, October 1, 2002)	Drilled by Noranda and Freewest 1990/1991; acquired from The Other Mining Company (U.S.) Inc. in 2002
Conway 52H/08NE	Li	1.83 MT @ 0.96% Li_2O to 300 m	E.S. Conway (Resident Geologist's Files)	GR 31, p 68	Inactive

Deposit Name and NTS	Commodity	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
Coubran Lake 42D/16NW SW	Cu, Fe, Ti, P	60 MT @ 0.2% Cu, 27% Fe, 5% Ti, 5% P; plus 32 MT @ 0.3% Cu, 23% Fe, 0.02% Ni, 2.48% Ti, 0.36% P	Newmont Mining Corporation of Canada Limited (Newmont Capital) (CMH 2002–2003, p.170)	AF (F.N. 2.14737; 1991)	87 leases and additional claims acquired from acquisition of Redstone Resources Inc. and Franco-Nevada; optioned to Aurogin Resources Ltd.
Dead Horse Creek North 42D/15SE	Pb, Zn, Ag	14 000 T @ 1.45% Pb, 7.28% Zn, 8.27 opt Ag	G. and W. Michano (2 of 8 original patented claims); remainder open for staking (Resident Geologist's Files)	Resident Geologist's Files	Inactive
Dead Horse Creek South 42D/15SE	Pb, Zn, Ag	35 000 T and 36 000 T (Zones 1 and 2) @ 19.87% Pb, 9.08% Zn, 27.65 opt Ag	J. McCabe (Resident Geologist's Files)	Resident Geologist's Files	Inactive
Dorion Mine 52A/15	Pb, Zn	Maximum of 35 000 T @ 10% Pb	K. Haskell (Resident Geologist's Files)	Andowan Mines Ltd., Prospectus, (30/03/1957)	Restaked by current holder in 2002
Elizabeth Mine 52B/13SE	Au	250 000 tons @ 4.57 g/t Au	R. Moffatt (Resident Geologist's Files)	CMH, 1998–1999, p.309	Inactive
Geordie Lake 42D/16SW	Cu, Ag, Pd	Indicated 24.4 Mt @ 0.33% Cu, 0.54 g/t Pd, 2.52 g/t Ag	L.E.H. Ventures Ltd. (CMH 2002–2003, p.247)	CMH 2002–2003, p.247	Drilling continuing in 2003
Great Lakes Nickel 52A/4SE	Cu, Ni, PGE	45.6 MT @ 0.344% Cu, 0.183% Ni, Pt & Pd values	Great Lakes Nickel Limited (CMH 2002–2003, p.197)	CMH 2002–2003, p.197	1970's bulk sample and feasibility study
Hammond Reef 52B/14NW	Au	85 Mt @ 0.93 g/t Au (= 2.56 million oz Au)	Kinross Gold Corporation (CMH 2002–2003, p.336)	Pentland Firth Ventures Ltd. (News Release, 1997)	1997 drilling, channel sampling and inventory calculation
Hemlo (Interlake) 42C/12NW	Au	10.8 M tons @ 0.216 opT Au (=2 328 000 oz Au)	Newmont Mining Corporation of Canada Limited (Newmont Capital) (CMH 2002–2003, p.170)	Franco-Nevada Mining Corporation Limited, First-Quarter Report, (1999)	Advanced exploration drifting and underground diamond drilling 1998–1999
Jack Lake 52B/14SW	Au	Possible 75 000 T @ 0.35 opT Au and 3000 T @ 0.30 opT Au; or 100 000 T @ 0.45 opT	M. Wicheruk (Resident Geologist's Files)	OFR 5332, p.J-7; Annual Report, Asamera Inc. (1981)	Inactive
Jean Lake 42E/05NW	Li	1.689 MT @ 1.30% Li_2O	Golden Nugget Exploration Inc. (CMH 2002–2003, p.190; Resident Geologist's Files)	Jean Lake Lithium Mines Ltd., Annual Report (1957)	Inactive
Kamnistikwia Prospect 52A/12	Fe	190 MT that could produce 47.5 MT of concentrate 62.85% Fe	Inland Steel Company	MRC 11, p.374	Inactive
Lac La Croix 52B/05SW	Li	1.525 MT @ 1.27% Li_2O	Within Quetico Provincial Park	AF	Mining Lease of Occupation expired in 1970

Deposit Name and NTS	Commodity	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
M.N.W. 52H/04NE	Li	40 000 T "high-grade Li"	Golden Nugget Exploration Inc. (CMH 2002–2003, p.190; Resident Geologist's Files)	GSC Economic Geology Report 21, p.61	Option to earn 70% interest granted to Platinova A/S in 2001 (CMH 2001–2002, p.296)
Marathon prospect 42D/16SW	Cu, Ni, PGE	24.3 Mt measured and indicated resources grading 1.22 g/t Pd, 0.31 g/t Pt, 0.10 g/t Au, 0.37% Cu	Press Release, October 12, 2004	Marathon PGM Corporation (News Release, October 12, 2004)	Property sold to Marathon PGM Corporation (Polymet Mining Corp. press release, January 15, 2004) DDH 2005
Marathon prospect 42D/16SW	Cu, Ni, PGE	21 261 000 t measured and indicated resources grading 1.32 g/t Pd, 0.34 g/t Pt, 0.12 g/t Au, 0.40% Cu	Polymet Mining Corp. (CMH 2002–2003, p.344)	Geomaque Explorations Ltd. (News Release, October 16, 2001)	Property sold to Marathon PGM Corporation (Polymet Mining Corp. press release, January 15, 2004)
Matawin Iron Range, Duckworth, Laurie and Horne Townships 52B/09 and 52A/12	Fe	120 MT @ 29.56% Fe	Monpre Mining Company Limited	MRC 11, p.376	Inactive
McVittie 52H/08NE	Li	261 000 T @ 1.03% Li_2O	Golden Nugget Exploration Inc. (CMH 2002–2003, p.190; Resident Geologist's Files)	GR 31, p.89	Inactive
Mt. Edna Prospect 52B/08 and 52B/01	Fe	270 MT @ 26.9% Fe	K. Kukkee	MRC 11, p.386	Active Claim
Nama Creek 52H/08NE	Li	4 292 232 tons @ avg. 1.06% Li_2O	Coniagas Resources Limited (CMH 2002–2003, p.109)	CMH 2002–2003, p.109	Inactive since 1957
Nicopor 42D/14NW	Ni, Cu	185 000 T @ 0.48% Ni, 0.26% Cu (0-90 m); plus 190 000 T @ 0.40% Ni, 0.12% Cu (90-180 m)	B. Fowler and M. Shuman; optioned to Novawest Resources Inc. (CMH 2002–2003, p.317)	Zenmac Metal Mines Ltd., Annual Report (1970)	Optioned to Novawest Resources Inc.; explored in 2001–2003
North Shores 42D/14SW	Au	Geological reserves of 2 Mt @ 2.2 g/t Au (Afric zone)	Autotrac Ltd.; currently optioned to International Taurus Resources Inc. (CMH 2002–2003, p.230)	Resident Geologist's Files	Explored in 1997 by Cyprus Canada Inc.; currently optioned to International Taurus Resources Inc.
Ontario Lithium (Jackpot) 42E/05SW	Li	1.18 MT @ 1.084% Li_2O	International Precious Metals Corporation (CMH 1997–1998, p.250) (company address and status unknown; CMH 2000–2001, p.220)	CMH 1997–1998, p.250	Drilling in 1994
Pistol Lake 52B/09NW	Au	9.6 mt @ 1.4 g/t Au or 2.9 mt @ 2.6 g/t Au	D. Parker and B. D'Silva	AF - geology report	Drilled by Detector Resources Ltd. 1994–1995
Powell 52B/07SW	Au	250 000 T @ 0.25 opT Au	Saganaga Resources	NM (Jan. 22, 1990)	Milling bulk sample on site, 1992
Prairie Lake 42E/02SE	U, Nb, REE, wollastonite	200 000 T @ 1.8 lbs/T U_3O_8, 5.0 lbs/T Nb_2O_5	Nuinsco Resources Limited (CMH 2002–2003, p.319)	NM (03/05/1979)	Prefeasibilty study on cement/lime products completed with positive results

Deposit Name and NTS	Commodity	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
Sapawe Mine 52B/14SW	Au	528 614 T @ 0.31 opT Au	Sapawe Gold Mines Ltd. (Resident Geologist's Files)	Sapawe Gold Mines Ltd. (News Release, March 10, 1995)	Diamond drilling, 1995
Sawbill Lake 52B/14	Au	66 600 T @ 0.20 opT Au		OFR 5332, p.J-4	
Schreiber–Pyramid 42D/14SE	Au	107 T @ 0.71 opT Au	B. Fowler (Resident Geologist's Files)	Resident Geologist's Files	Inactive; last worked in 1992
Silver Mountain 52A/04NW	Ag	60 000 T @ 5.0 opT Ag, 12% CaF_2		NM (28/10/54)	
Silver Islet 52A/07SW	Ag	115 000 T @ 40 opT Ag in dump, plus 300 000 oz Ag in roof pillar, or 1 050 000 oz Ag plus 750 000 oz Ag in pillars and stopes	Cross estate (Resident Geologist's Files)	MP 71, p.44; MRC 10, p.74; NM (18/10/1979); NM (10/02/1983)	Dump material processed ca 1984 by QC Explorations Ltd.
Snodgrass Lake 52B/10SE	Au	60 Mt @ 1.1 g/t Au, including measured and indicated resources of 475 000 t @ 6.2 g/t Au	Moss Lake Gold Mines Ltd. (CMH 2002–2003, p.283)	CMH 2002–2003, p.283; River Gold Mines Ltd., Annual Information Form (May 3, 2002)	Drilling in 2003; seeking JV partner
Stewart–Fire Tower 52A/12SE	Au	60 000 t @ 3.0 g/t Au	M. Stewart; optioned to Valerie Gold Resources Ltd. in 2002 (CMH 2002–2003, p.431)	AF - geology report	Currently being explored by ValGold Resources Ltd.
Sunbeam 52B/14	Au	4410 T @ 0.42 opT Au	(unknown)	OFR 5332, p.J-2	Acquired by Allegheny Mines Ltd. in 1996 (company delisted 1999)
Swamp River 52B/09SE	Au	998 000 T @ 0.12 opT Au (incl. 675 000 T @ 0.146 opT Au)	Band-Ore Resources Ltd. (CMH 2002–2003, p.52); optioned to Staccato Gold Resources Ltd.	CMH 2002–2003, p.52	Drilling in 2003 on main zone; Mag, EM, IP
Vanguard 52B/09NW	Cu, Zn, Au, Ag	East Vanguard: 100 000 T @ 1.8% Cu, 3.4% Zn, 0.22 opt Ag, 06 to 0.19 opT Au; West Vanguard: ~200 000 T @ 1.3% Cu, 1% to 2% Zn, 0.28 opT Ag	C. Bumbu, M. Fogen and J. Martin (Resident Geologist's Files)	Allegheny Mines Corporation (News Release, Nov. 4, 1997)	Optioned to Canadian Goldon Dragon Resources Ltd. in 2002; diamond drilling in 2002–2003; VTEM in 2004
Vegan 42E/05SW	Li	750 000 T @ 1.38% Li_2O	Golden Nugget Exploration Inc. (CMH 2002–2003, p.190; Resident Geologist's Files)	NM (22/03/1956)	Inactive
Willecho and Willroy 42F/04NW	Cu, Zn, Ag	759 448 T @ 4.42% Zn, 0.28% Cu, 1.47 opt Ag (combined)	Noranda Inc. (*The Chronicle-Journal*, 25/10/98)	Willroy Mines Ltd., Annual Report (1976)	Past producers; last optioned/worked by Noranda Mining and Exploration Inc.
Winston Lake 42D/14NW	Cu, Zn	598 000 t @ 1.0% Cu, 21.2% Zn (incl. 33% dilution)	Inmet Mining Corporation	Inmet Mining Corporation, Pers. Comm., 1999	Mine closed, February 1999
Wisa Lake 52C/08NE	Li	330 000 T @ 1.15% Li_2O	P. Gagne (Resident Geologist's Files)	Manager's Report, Lexindin Gold Mines Ltd. (1958)	Diamond drilling, 1950s; staked in 2001 by current holder

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Metric Conversion Table

Conversion from SI to Imperial			Conversion from Imperial to SI		
SI Unit	*Multiplied by*	*Gives*	*Imperial Unit*	*Multiplied by*	*Gives*
		LENGTH			
1 mm	0.039 37	inches	1 inch	**25.4**	mm
1 cm	0.393 70	inches	1 inch	**2.54**	cm
1 m	3.280 84	feet	1 foot	**0.304 8**	m
1 m	0.049 709	chains	1 chain	20.116 8	m
1 km	0.621 371	miles (statute)	1 mile (statute)	**1.609 344**	km
		AREA			
1 cm^2	0.155 0	square inches	1 square inch	**6.451 6**	cm^2
1 m^2	10.763 9	square feet	1 square foot	**0.092 903 04**	m^2
1 km^2	0.386 10	square miles	1 square mile	2.589 988	km^2
1 ha	2.471 054	acres	1 acre	0.404 685 6	ha
		VOLUME			
1 cm^3	0.061 023	cubic inches	1 cubic inch	**16.387 064**	cm^3
1 m^3	35.314 7	cubic feet	1 cubic foot	0.028 316 85	m^3
1 m^3	1.307 951	cubic yards	1 cubic yard	0.764 554 86	m^3
		CAPACITY			
1 L	1.759 755	pints	1 pint	0.568 261	L
1 L	0.879 877	quarts	1 quart	1.136 522	L
1 L	0.219 969	gallons	1 gallon	**4.546 090**	L
		MASS			
1 g	0.035 273 962	ounces (avdp)	1 ounce (avdp)	28.349 523	g
1 g	0.032 150 747	ounces (troy)	1 ounce (troy)	**31.103 476 8**	g
1 kg	2.204 622 6	pounds (avdp)	1 pound (avdp)	**0.453 592 37**	kg
1 kg	0.001 102 3	tons (short)	1 ton (short)	**907.184 74**	kg
1 t	1.102 311 3	tons (short)	1 ton (short)	**0.907 184 74**	t
1 kg	0.000 984 21	tons (long)	1 ton (long)	**1016.046 908 8**	kg
1 t	0.984 206 5	tons (long)	1 ton (long)	**1.016 046 90**	t
		CONCENTRATION			
1 g/t	0.029 166 6	ounce (troy)/ ton (short)	1 ounce (troy)/ ton (short)	34.285 714 2	g/t
1 g/t	0.583 333 33	pennyweights/ ton (short)	1 pennyweight/ ton (short)	1.714 285 7	g/t

OTHER USEFUL CONVERSION FACTORS

	Multiplied by	
1 ounce (troy) per ton (short)	31.103 477	grams per ton (short)
1 gram per ton (short)	0.032 151	ounces (troy) per ton (short)
1 ounce (troy) per ton (short)	20.0	pennyweights per ton (short)
1 pennyweight per ton (short)	0.05	ounces (troy) per ton (short)

Note: Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries, published by the Mining Association of Canada in co-operation with the Coal Association of Canada.

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